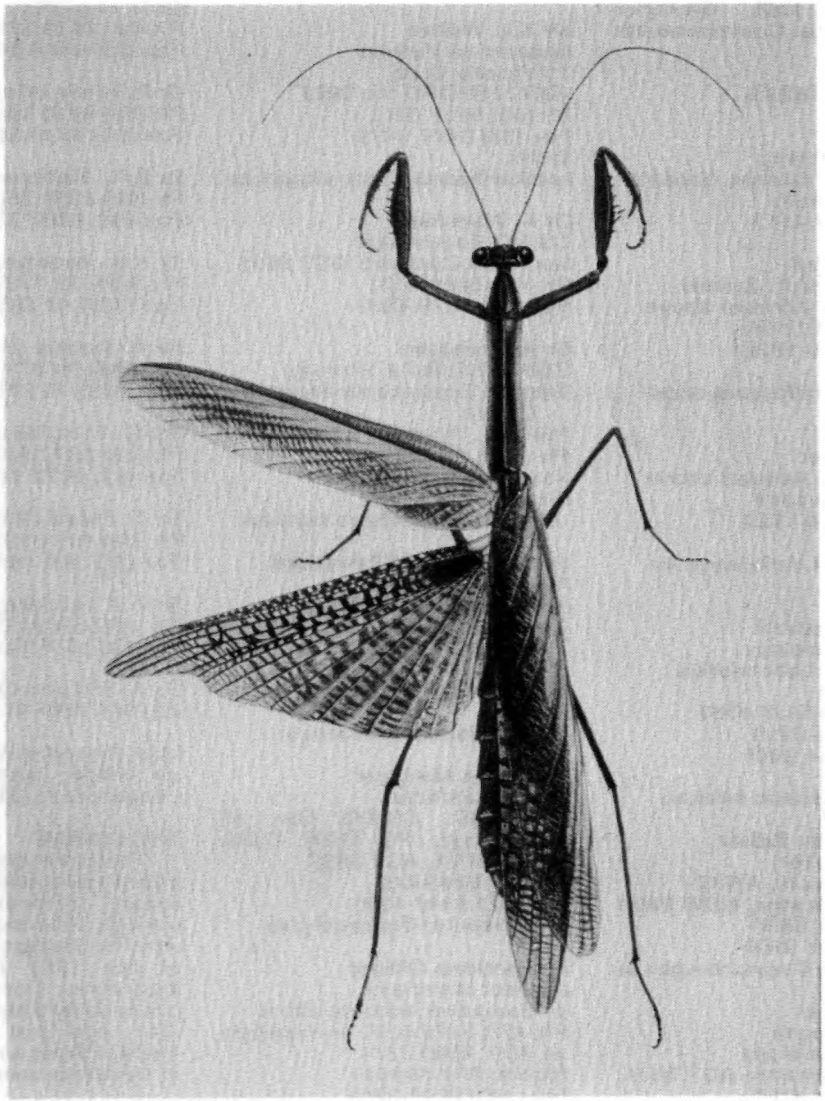
MYRMECIA

News Bulletin of the Australian Entomological Society Inc.
Volume 33, Part 4, November 1997
Australia Post Print Post Publication PP242296/00144. Price $2



AUST. ENTOMOL. SOC.
EXECUTIVE ADDRESS
Aust. Entomol. Soc. Executive
c/- Dept of Entomology
University of Queensland
QLD 4072
AUSTRALIA

SOCIETY WEB SITE
http://www.uq.edu.au/entomology/aes/intro.html

Patron
The Honorable Sir William Deane AC KBE, Governor General of the Commonwealth of Australia

OFFICE BEARERS

President
Prof. R.L. Kitching
School Aust. Environ. Studies
Griffith University
NATHAN Qld 4111

Vice President
Assoc. Prof. M.P. Zalucki
c/- Executive Address above
Ph (07) 3365 2194
Fax (07) 3365 1922
Email
m.zalucki@mailbox.uq.oz.au

Secretary
Dr D.E. Walter
c/- Executive Address above
Ph (07) 3365 1564
Fax (07) 3365 1922
Email:
davidw@pest.ctpm.uq.oz.au

Treasurer
Ms V.A. Brancatini
CSIRO Entomology
Long Pocket Laboratories
PMB #3 PO
Indooroopilly QLD 4068
Ph (07) 3214 2810
Fax (07) 3214 2885
Email:
veronica@brs.ento.csiro.au

News Bulletin Editor
Dr M.J. Fletcher
NSW Agriculture, ARVC
Forest Rd, Orange, NSW 2800
Ph (02) 6391 3800
Fax (02) 6391 3899
Email fletchm@agric.nsw.gov.au

Public Officer
Dr I.D. Naumann
CSIRO Entomology
Box 1700 Canberra ACT 2601
Ph (02) 6246 4262
Fax (02) 6246 4000
Email iann@ento.csiro.au

Chief Editor
Dr P.G. Allsopp
Sthn Sugar Experiment Stn
Box 651 Bundaberg, Q 4670
Ph (071) 59 3228
Fax (071) 59 3383
Email: aes@interworx.com.au

Technical Editors
Dr A.L. Bishop
Horticultural Research Station
Box 581 Gosford NSW 2250
Ph (02) 43481928
Fax (02) 43481910

Mr K.L. Walker
Museum of Victoria
71 Victoria Cres
ABBOTSFORD Vic 3067
Ph (03) 9284 0201
Fax (03) 9416 0475
Email
kwalker@pioneer.mov.vic.gov.au

Dr A. Wapshere
CSIRO Entomology
Box 1700 Canberra ACT 2601
Ph (02) 6246 4137
Fax (02) 6246 4000

Dr A. Andersen
CSIRO Wildlife & Ecology
Tropical Ecosystems Research Centre
PMB 44, Winnellie NT 0821
Ph (089) 22 1727
Fax (089) 47 0052
Email
Alan.Andersen@terc.csiro.au

Immediate Past President
Prof. R.E. Jones
Pro-Vice Chancellor
James Cook University,
Townsville, Qld 4811
Ph (077) 81 5451
Fax (077) 81 4452
Email:
rhondda.jones@jcu.edu.au

Business Manager
Mr Mike Jefferies
c/o ANIC, CSIRO Div. of Entomology, PO BOX 1700, CANBERRA, ACT 2607
Ph (02) 62864033
Fax (02) 6246 4000
Email mjefferi@pcug.org.au

Promotions Officer
Jennifer Marohasy
c/- Executive Address above
Ph: (07) 3379 3261 or message at: (07) 3365 2271
Mobile: 019 624833
Fax: (07) 3379 3261
Email: jenifer@powerup.com.au

CONSERVATION COMMITTEE
Assoc/Prof. Jonathon Majer
School of Environmental Biology
Curtin University of Technology
GPO Box U1987
Perth WA 6001
Ph (09) 351 7964
Fax (09) 351 2495
Email imajer@info.curtin.edu.au

Dr T. New (Vic)
Ph (03) 9479 1111
Fax (03) 9478 5814

Dr R. Coy (Vic)
Ph (03) 9419 5200
Fax (03) 9416 0475

Dr P. Horne (Vic)
Ph (03) 9810 1528
Fax (03) 9819 5653

Dr E.G. Matthews (SA)
Ph (08) 8207 7500
Fax (08) 8207 7222

Dr A.N. Andersen (NT)
Ph (089) 22 1727
Fax (089) 47 0052

Mr P. Dostine (NT)
Ph (089) 79 9711
Fax (089) 79 2076

Ms G. Carruthers (ACT)
Ph (02) 6272 5070
Fax (02) 6272 5074

Dr G. Friend (WA)
Ph (09) 405 5121
Fax (09) 306 1641

Dr R.V. Gunning (NSW)
Ph (02) 67631128
Fax (02) 67679370

Dr G. Williams (NSW)
Ph (02) 9339 8111

Vice President & Secretary are *ex officio* members of the Conservation Committee

THE COVER

The cover depicts *Tenodera australasiae*, one of the best known common Australian mantids. The illustration, which won the Student Colour section of the 1996 AES Scientific Illustration Competition, was prepared by **Sharyn Wragg** who also won first prize in the Student Black and White section of the same competition.

MYRMECIA

CONTENTS

Executive Report 1
Obituaries
Paul Madge 2
Clee Jenkins 4
AES Research Reports
Danuta Knihinicki 6
Mike Calver, et al. 6
Report of 28th AGM
& Scientific Conference 9
Annual Report 1997 18
Regional News
Australian Capital Territory 23
New South Wales 25
Northern Territory 27
Queensland 28
South Australia 31
Tasmania 33
Victoria 34
Western Australia 35
Overseas News 35
FASTS News 35
Ten Easy Steps to get Media Coverage
for your Scientific Conference 37
Electronic News 39
Coming Events 40
New Publications 43
Notices 43
Membership Appl. Form . . inside back cover

ADVERTISING RATES FOR MYRMECIA

	Single Issue	4 Issues (One year)
Full Page	$60	$180
Half Page	$35	$105
Quarter Page	$24	$72

These rates apply to camera-ready copy supplied by the advertiser. Where this is not supplied, an additional charge may be made for the layout.

In addition, loose inserts and pamphlets supplied by the advertiser will be included in a mailout for $100 per item. The items should be of a size which will not project beyond the pages of *Myrmecia*.

NOTICE

Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society. Items printed herein should not be reproduced without permission of the author of the material.

COPY DEADLINE FOR NEXT ISSUE

Material for publication in the February 1998 issue of *Myrmecia* should be in the hands of the Editor at the address below by **Friday 23 January 1998**. Submission to fletchm@agric.nsw.gov.au is preferred but submission on IBM-compatible floppy disk in a major word processing format, or by fax, letter or carrier pigeon to the address below is acceptable.

Murray FLETCHER
AES News Bulletin Editor
Orange Agricultural Institute
Forest Road, ORANGE NSW 2800
Fax: 02 6391 3899
Email: fletchm@agric.nsw.gov.au

SOCIETY HONORARY MEMBERS

Dr B.R. Champ
Dr I.F.B. Common
Dr E.N. Marks
Dr K.R. Norris
Dr C.N. Smithers
Dr D.F. Waterhouse

MACKERRAS MEDALLISTS

1984 Dr J.A.L. Watson
1986 Dr R.W. Sutherst
1988 Dr T.R. New
1990 Dr R.A.I. Drew
1992 Dr E.S. Nielsen
1996 Dr M.P. Zalucki

SOCIETY SUSTAINING ASSOCIATES

Aust. Entomol. Supplies
Ciba-Geigy Ltd
Cyanamid Australia Pty Ltd
Dow Elanco (Aust) Ltd
Hoechst-Schering AgrEvo P/L

EXECUTIVE REPORT

MEETINGS

The Core Executive met on 28 August, 10 September and 11 October 1997.

URGENT
MESSAGE FROM VERONICA

1998 SUBSCRIPTIONS ARE DUE BY JAN 1 WITH A LARGE NUMBER OF MEMBERS WITH 1997 PAYMENTS STILL OUTSTANDING. THE SOCIETY CANNOT AFFORD TO CARRY THESE MEMBERS SO, UNLESS YOU WISH TO BE EXCLUDED FROM MEMBERSHIP, PROMPT PAYMENT OF ALL OUTSTANDING SUBS WOULD BE APPRECIATED.

Please note that there is a minor error in the subs notices sent to members. Credits are indicated by a negative sign, not brackets as stated in the text.

NEW MEMBERS

Elected as Full Member:

Pauline PETERSON, Plant Protection Unit, QDPI, 80 Meiers Rd, Indooroopilly QLD 4068

Bronwyn HOULDING, DPI Gatton, Mailbag 7 M/S 437, Gatton, QLD 4343

Mofakhar HOSSAIN, Dept Natural Resources & Environment, Institute of Sustainable Irrigate Agriculture, Tatura, P.B. 1, Vic 3616

LOST MEMBERS

Simon LAWSON (formerly IBS, University of Tsukuba, Ibaraki Japan)
Robert WYLDE
David EMERY
Don EWART
Mike GRIMM
Kevin & Jane BODNARUK
DJ CHAPPELL
M.A. COLLIER
C.L. DAY
B.M. DOUBE
C.E. HOELSCHER
A.G.L. WILSON

FROM MINUTES OF THE CORE EXECUTIVE

Much of the business continues to revolve around changes to the journal and non-payment by members who have been misplaced or suffered severe lapses in memory (including those who have forgotten that they are no longer students). Members who have not paid their dues for the last two years will be excluded from the Society. It will be the Secretary's onerous duty to track down the misplaced members and inform the scofflaws that they owe for the journals and newsletters that they have been receiving.

According to the Constitution 21. (c):

> Any member whose subscription is more than two years in arrears shall, unless the Executive otherwise determines, cease to be a member of the Society, and shall not be eligible for further nomination unless the full amount of the arrears together with the subscription for the current year is tendered with a further nomination form.

Journals and newsletters have been sent out to delinquent members in the assumption that payment would be forthcoming (or that a letter of resignation would be received along with a cheque for past dues). However, since we will soon be paying a publisher for every name on the roles, we will need to be less forgiving in the future. Nearly ten thousand dollars is owed by members as of this moment, and this puts the Society in a very awkward financial position.

New Council Members and Executive Appointments

Robyn Coy ended her term as Councillor for Victoria and was replaced by **Fiona Clissold**, Dept Ecology & Evolutionary Biology, Monash University, CLAYTON VIC, 3168, 03-99055631, 03-99055613, fiona.clissold@sci.monash.edu.au

Mike Keller ended his term as Councillor SA and was replaced by **Paul Dangerfield**, Dept of Crop Protection, Waite Campus, The University of Adelaide, GLEN OSMOND SA, 5064, pdangerf@waite.adelaide.edu.au, 08-83037273, 08-83794095.

David WALTER
Hon. Secretary

Obituary
Paul Madge
1923 - 1997

Paul Madge was born in Oklahoma in 1923 and as a young child moved with his family to California, part of the great migration from the Dust

Bowl. He attended Whittier High School. When the USA entered the war in 1942 he volunteered for the army and served in Europe, going to France just after D-Day and seeing action there until the end of the war in Europe. On repatriation he took advantage of the "G.I. Bill of Rights" to continue his education at San Luis Obispo Agricultural College.

He became interested in the biological control of weeds by insects and, because of the great success of *Cactoblastis* against *Opuntia*, came to Australia, hoping to pursue this interest. He went to study with Dr **A.R. Woodhill** at Sydney University, but Woodhill's interests were quite different and he urged Paul to go to the Waite Agricultural Research Institute at the University of Adelaide where **H.G. Andrewartha** was developing a group of insect ecologists. Andrewartha secured a grant from the Wool Board and Paul began work on the ecology of the underground grass grub, *Oncopera fasciculata*. On gaining his PhD, Paul secured a travel grant, again from the Wool Board, which took him to Cambridge to work for a year with **J.S. Kennedy** in **V. B. Wigglesworth**'s unit of Insect Physiology. On his return to Australia he again joined Andrewartha who now had established a Unit of Animal Ecology in the Department of Zoology, The University of Adelaide.

At this time growers were experiencing great problems with insects devastating crops at Kununurra on the Ord River, and Paul was recruited by CSIRO to study the problem. However, Kununurra was a difficult place in which to work, with many problems among the staff and many people leaving. The result was that Paul was required to take a heavy load of administration which eventually led to his having to leave also. He returned to Adelaide, resigned from CSIRO and took up a position with the then South Australian Department of Agriculture.

Paul worked with the Department of Agriculture for 18 years until his retirement in 1987. Paul's lasting contribution to entomology in South Australia was to integrate the small number of Department of Agricultureentomologists into a functional group; a type of "entomology commune", consistent with Paul's fabian outlook on life. He laid the groundwork for a close working relationship with entomologists at the Waite Agricultural Research Institute, The University of Adelaide, with frequent meetings at the Edinburgh Hotel on Friday evenings. Paul shielded his staff from the ravages of several bureaucratic "re-organisations" and the entomology unit maintained its integrity because it was recognised as delivering useful research results to South Australian agriculture.

Paul Madge, 1923-1997

Paul made significant contributions to pomefruit and vegetable pest management in South Australia with focus on the key pests of codling moth and two-spotted mite. However his main entomological interest was in keeping tephritid pests out of South Australia. He was the sole entomologist on the Fruit Fly Technical Committee, which advised the Pest Eradication Unit on the technical aspects of fruit fly control. In this capacity, he helped streamline the methods used in fruit fly eradication, with some of the practices previously unchanged

since 1947. One disadvantage in working in a fruit fly free State was the difficulty in actually doing experiments with new techniques. Paul was able to introduce new technology by close liaison with **Alan Bateman** of CSIRO Entomology, and USDA entomologists. In the last months of his life, he put the finishing touches to his "History of Fruit Fly in South Australia", which will soon be published.

Paul was a foundation member of the Australian Entomological Society and Honorary Secretary from February, 1992 to September, 1995. Newly-elected and with little secretarial experience, he saw the need for the production of guidelines for the operation of the Society. In August, 1996 he completed an Operational Manual which detailed the Society's business and responsibilities of officers of the Society. He also purchased his own computer to prepare notices, agendas and minutes, all meticulously prepared, professional and prompt. He all but completed a "History of the Society" which, it is hoped, will be published in future issues of *Myrmecia*. Paul's contribution to the Society was acknowledged with the conferral of the 1995 AES Service Award.

Paul is remembered by all who worked with him as being ever friendly and approachable. His humour was characterised by an impeccable sense of timing and he could reduce a pompous argument to ruins with a well-placed one-liner. He encouraged young entomologists to develop their ideas, and supported worthy staff. His genuine and amicable nature will be missed by all those who knew him.

Tom BROWNING
Peter BAILEY
Greg BAKER
Gary TAYLOR

Obituary

C. F. H. JENKINS, M.B.E
1908 - 1997

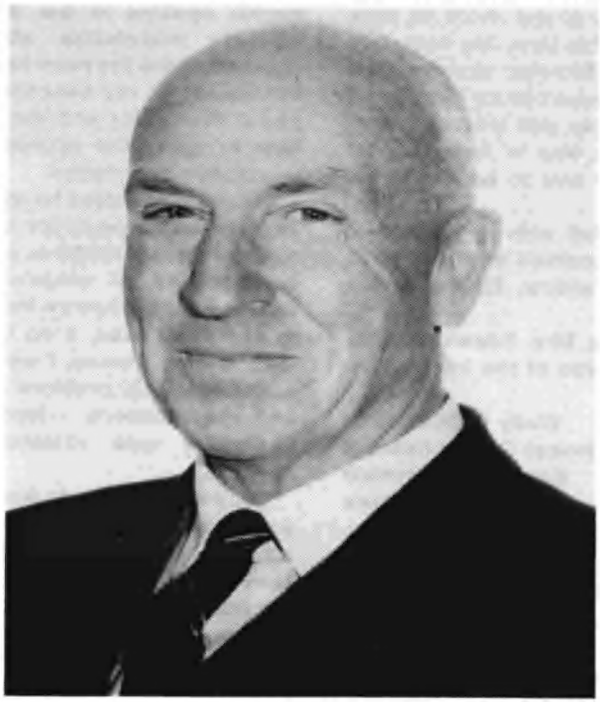
Clee Jenkins was born in Adelaide, SA, in 1908 and died in Perth, WA, on 13 July, 1997. He was the government entomologist with the WA Department of Agriculture (now Agriculture Western Australia) between 1939 and 1965, after which he was appointed chief of the Biological Services division.

Clee Jenkins was educated at St. Peter's College Adelaide and came to Perth in 1926. In 1929 he started work as a cadet at the West Australian Museum under the somewhat famous curator **Ludwig Glauart**, I think bringing the staff of that institution to a total of three. In 1933 he obtained a job in the Entomology Branch of the Department of Agriculture under another well-known scientist **Leslie J.W. Newman**. The latter was rather famous for his day, and his enthusiasm for entomology was, I am sure, passed on to Clee. Clee's appointment increased the number of staff in the branch to two. Though it was part of a larger Department, its main interest began as pure entomology rather than the economic discipline it became. During this time Clee was studying part time for his BA which he received in 1935, and subsequently gained his MASc (Zool) just over 4 years later. Newman was apparently not the easiest man to get along with and although a few notable entomologists came, none stayed very long. When Newman died suddenly, Clee was there and took over the position. It was some time before regular staff were appointed to the branch which kept him fairly busy. I recall him telling how he was instructed to take his bicycle to Northam on the train and then ride out to the place where he was to give his advice. The collection of insects and their identification was important and the Department still houses Western Australia's insect collection initiated by Newman, which now contains some 200,000 specimens and which dates back to the 1880's.

Clee was President of the Royal Society of Western Australia for three terms and gave a presidential address on the fleas of the country and their part in spreading the *Myxoma* virus (commonly known as the organism which causes myxomatosis) which was being introduced to control the rabbit population. In the 1970s he became chairman of the board of the South Perth Zoological Gardens and later still chairman of the National Parks Board of W.A. and the King's Park Board. He was also a foundation member and president of the Gould League for 21 years. His keen interest in ornithology and zoology made him a strong defender of these subjects. He did however have a small skeleton in his cupboard as it was due to his interest in the former as a young person, in the shape of a very good but small collection of birds' eggs. I recall him getting me to carefully pack them and he gave them away, I think to the museum run by the monks at New Norcia. I also believe that he felt guilty about having to recommend chemicals that were capable

of damage. With the start of World War II, things started to warm up as the nation had to feed itself and all the people from other shores that descended on the country.

During the war he wrote a series on controlling insect pests in the home garden. A total of 60 articles was written during this period, each covering one or more pest species, but sometimes several. These articles were produced weekly and occupied a full page of a newspaper called the "Western Mail". An assistant to Clee was appointed in 1939 making a branch of two people. As the war drew to a close the new wonder chemicals for insect control came on the scene. Several firms were formulating these chemicals in W.A. and much time was spent testing them against a range of pest species, and Clee had to oversee these tests.



Clee Jenkins 1908 - 1997

After World War II, many young men who were being discharged from the armed forces enrolled in degrees in the Ag Science course offered by the University of Western Australia (UWA). Clee took on the task of teaching the economic entomology component of the course. In the first year, 1947, a total of 28 students was enrolled. This number tapered off to 10-15 a year thereafter. Some of these students later became directors of Agriculture WA.

The effect of men being away at war had caused a decrease in cultivated land. This led to abandoned land in the outer wheatbelt of WA, in which the small plague grasshopper, *Austroicetes cruciata* (Saussure) bred in huge numbers. These insects almost reached the outskirts of the Perth metropolitan area looking for reproductive sites. This was a severe threat to remaining wheat growers and there was much pressure to find a control measure. Also, at this time the Argentine Ant made its appearance. It was a serious household pest and eventually a control program was started which went for over six years. In addition to the Metropolitan area, many country towns were infested with these ants. Economic damage also occurred in orchards. In 1951 work on controlling the abundant native insect pests of cotton in the new Ord River irrigation scheme in the Kimberley created much more work for the Branch when experiments had to be carried out to control native insects that attacked the cotton. Clee had the overall responsibility for all these projects and of course took the blame for the introduction of all these chemicals when they went out of favour. Clee became the chief of the Biological Services Division in 1965 and remained in that position until his retirement in 1973. On his retirement the Entomology Branch had grown to around 10 Entomologists and five or six technicians and other staff.

Clee had a keen sense of humour and a very good memory. Literature in our branch library was very well indexed and cross indexed according to species, hosts and control measures. However should something crop up in conversation he could tell you the volume, chapter and, I think, the page. He could always remember details about our family and would inquire about their progress at school, university, school, etc. We used to try to get a rise out of him during our socialising in the morning tea room, but were rarely successful. He

was always very formal, but friendly as well. However in the thirty years or so that I knew him, he never addressed me by my christian name until he and I had retired. He was a great raconteur and a very good speaker. His radio talks on naturalist subjects "Wildlife and the Farmer" were always very well received. His lifelong interest in entomology was documented in his 1988 book "The Wanderings of an Entomologist". We often laughed at his stories about older staff and academics he had known. A year or two before he retired, I felt very proud when he called me in and told me to take over some of the more or less routine things that occupied his time. My final duty was to arrange his Departmental presentation when he retired. In all the years I knew him, I had never known him to take a day sick leave. I spoke to him by phone when he was in hospital just before his death and found him to be the same Clee Jenkins.

Clee was finally honoured with an honorary Doctorate of Science in Agriculture in March 1995 from UWA. Clee leaves a widow, Eileen, and a daughter.

I am indebted to his widow, Mrs. Eileen Jenkins, for her help in providing some of the information for this article.

Wally O'DONNELL
Technical Officer (retired)
Entomology Branch
WA Department of Agriculture

AES RESEARCH GRANT REPORT

Aspects of the taxonomy, biology and ecology of plant-feeding Eriophyoidea (Acarina: Prostigmata) associated with native tea trees, *Melaleuca* sp.

by **Danuta Knihinicki**
Orange Agricultural Institute, Forest Road,
Orange, NSW 2800

The grant was used to support an overseas visit in June/July 1997 to Prof **Jan Boczek**, a world authority on the Eriophyoidea. He is located at the Department of Applied Entomology, Warsaw Agricultural University, Poland. All aims proposed in the initial application for this grant have been fulfilled. Below is a summary of what has been achieved as a result of this visit.

Under the guidance of Prof Boczek over 4.5 weeks, I was able to describe one new genus and 10 new species of eriophyoid mites. Prof Boczek confirmed a number of species identifications that are new records for Australia. As a result of this work, three to four publications are anticipated. Linkages for future collaboration have been established.

I learnt how to use Prof Boczek's "Generic Key to the World Fauna of Eriophyid Mites" properly. He showed me how he tackles eriophyoid identifications, how to decide if a species is new to science, and how to make comparisons with similar species in the literature. I also gained valuable knowledge about which taxonomic characters are the most important, hence assuring the quality of my descriptive work. I learnt more about illustrating and measuring specimens, and how to apply the appropriate terminology for a taxonomic description.

I learnt techniques for specimen preparation and was shown the best type of microscopy equipment to use for identifications and descriptive work. For comparisons of eriophyoid species with type specimens, it is known that type material is difficult to obtain on loan, it no longer exists or is badly deteriorated. Hence, I was able to find out how to counteract this problem for species descriptions and identifications. I also learnt how to properly designate type material for new eriophyoid species.

On the way back to Australia, I had a short visit with Prof Jim Amrine who is also a world authority on the Eriophyoidea. He is located at the University of West Virginia, Morgantown, West Virginia, USA. Prof Amrine is very innovative with techniques for studying eriophyoids and I was able to learn some handy hints for specimen preparation. He has devised a comprehensive computer database for eriophyoid mites which contains information on species, host records and literature. Collaboration is continuing.

AES RESEARCH GRANT REPORT

A search for new species of phorids (Diptera: Phoridae) in south-western Australia

M.C. Calver, S.J.J.F. Davies and **C. Brown**
Division of Science, Murdoch University, Murdoch Western Australia 6150
Correspondence to M.C. Calver, Fax 09 3104929; email calver@cleo.murdoch.edu.au

Introduction

The Phoridae are a cosmopolitan family of small greyish-black flies with a characteristic enlarged thorax (hunchbacked). The adults are active runners and, while habitats are varied, the free living forms often occur in decaying vegetation. A range of lifestyles of Australian species is described by Colless and McAlpine (1991) and Disney (1995). Although they are common, little is known of the Australian Phoridae. Very few species are described, especially from Western Australia, and their distribution is poorly known (RHL Disney, pers. comm.).

In 1995 Dr RHL Disney of the University Museum, Cambridge, visited Western Australia and collected along the Avon River east and south of Perth in the hope of describing WA Phoridae. Using water traps he collected over 300 specimens in just a few days, including up to four new species (RHL Disney, pers. comm.) Since his technique is quick, simple and cost-effective, the present project used it to collect free-living Phoridae in south-western Australia, Sept to Dec 1996.

Methods

Trapping free-living Phoridae is inexpensive and technically simple. The trap consists of plastic ice cream containers (2l volume) containing water to a depth of approximately 3cm to which one drop of detergent is added to reduce surface tension. Traps were positioned approximately 3m apart along 1km transects and left for 24h, after which trapped specimens were retrieved with a pooter and stored in 70% ethanol. In total, phorids were collected from 28 transects in the south-west of Western Australia, following the Warren, Tone, Avon, Moore and Blackwood river systems and their catchments. Voucher specimens were described by Dr RHL Disney and will be lodged in the Western Australian Museum, Perth.

Results and Discussion

Precise geographic locations of all transects are shown in Figure 1. and details of the phorids collected are shown in Table 1. The genus *Megaselia* appears widespread within the south-west, while the genus *Metopina* may be more restricted with specimens only collected from wetter sites along the Blackwood and Warren/Tone River systems. Only one of the 14 species collected had been described, confirming the poor taxonomic knowledge of Australian phorids.

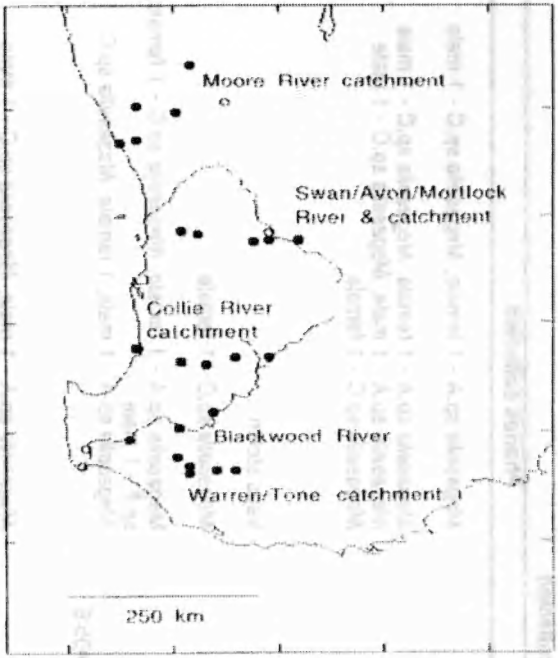


Figure 1. Exact sites of transects sampled in SW Western Australia.
- • Site sampled and phorids collected
- o Site sampled but no phorids collected

References

Colless, D.H. and McAlpine, D.K. (1991). "Diptera" in Naumann, I. (chief ed) *The Insects of Australia: A textbook for students and research workers.* Melbourne University Press, Carlton, Victoria.

Disney, R.H.L. (1995). A new species of *Dohrniphora* (Diptera, Phoridae) associated with a stingless bee (Hymenoptera, Apidae) in Australia. *Sociobiology* 26, 229-239.

Table 1. [see over]

Table 1. Exact locations of transects and lists of phorids collected.

Location of transects		Phorids collected
Moore River (August 1996)		
1. Guilderton	31°20'S, 115°30'E	*Megaselia* sp.A - 1 female, *Megaselia* sp.C - 1 male
2. Gingin Brook	31°18'S, 115°40'E	
3. Regan's Ford	30°59'S, 115°40'E	*Megaselia* sp.A - 1 female, *Megaselia* sp.C - 1 male
4. Mogumber	31°02'S, 116°02'E	*Megaselia* sp.A - 1 male, *Megaselia* sp.C - 1 male
5. Long Pool	30°35'S, 116°10'E	*Megaselia* sp.C - 1 female
Avon River Valley and catchment (August 1996)		
1. Helena River	30°56'S, 116°30'E	
2. York		traps stolen
3. Beverley	32°10'S, 116°56'E	
4. Ski Road, Yenyenning Lakes	32°14'S, 117°12'E	*Megaselia* sp.C - 1 female
5. Easthope, Mt Kokeby	32°14'S, 116°56'E	
6. Dale River	32°15'S, 116°47'E	Megaselia sp.A - 1 female, *Megaselia* sp.C - 1 female, *Megaselia* sp.F - 1 male
7. Omeo Road	32°11'S, 116°15'E	*Megaselia* sp.A - 1 male, 1 female, *Megaselia* sp.C - 1 male
8. cnr Croydon Rd & Brookton Hwy, Armadale	32°09'S, 116°05'E	
Collie River and catchment (October 1996)		
1. Australind	33°15'S, 115°13'E	*Megaselia* sp.A - 1 male, *Megaselia* sp.C - 1 male
2. Wellington Dam	33°22'S, 116°05'E	*Megaselia* sp.C - 1 female, *Megaselia* sp.E - 1 male, 1 female, *Megaselia* sp.G - 1 male
3. Collie River - Cabbage trees	33°24'S, 116°20'E	*Megaselia* sp.C - 1 male, *Megaselia* sp.E - 1 male
4. Boolading	33°20'S, 116°36'E	*Megaselia* sp.A - 1 female, *Megaselia* sp.H - 1 male, *Megaselia* sp.M - 1 female
5. Brown's Bridge, Arthur River	33°20'S, 116°56'E	
Blackwood River (November 1996)		
1. Augusta	34°20'S, 115°08'E	
2. Alexzndra Bridge	34°10'S, 115°10'E	
3. Longbottom Road, Danadup	34°05'S, 115°36'E	*Megaselia* sp.A - 1 male, *Metopina* sp.Q - 1 male
4. Old Bridgetown Rd, nr Ford Rd	33°59'S, 116°04'E	*Megaselia* sp.E - 1 male, *Metopina* sp.Q - 1 male
5. Apex Reserve, Boyup Brook	33°50'S, 116°23'E	*Megaselia* sp.A - 1 male, *Megaselia* sp.C - 1 female, *Megaselia impariseta* - 1 male
Warren and Tone Rivers (September 1996)		
1. South of Old Vasse Road	34°15'S, 116°03'E	*Megaselia* sp.C - 1 male
2. Langley Road, Warren River	34°24'S, 116°10'E	*Megaselia* sp.E - 1 male
3. Smith's Brook	34°20'S, 116°10'E	*Megaselia* sp.A - 1 male, 1 female, *Megaselia* sp.K - 1 female, *Metopina* sp.CB - 1 female
4. Strachan, Tone River	34°22'S, 116°05'E	*Megaselia* sp.A - 1 male, *Megaselia* sp.C - 1 male
5. Liza Road, Tone River	34°22'S, 116°36'E	*Metopina* sp.E - 1 male, *Metopina* sp.Q - 1 male (?= male of sp.CB)

Report of organising committee of 28th AGM & Scientific Conference held in Melbourne from 28th September - 3rd October 1997

The organising committee for this year's meeting comprised **Robyn Coy, Fiona Clissold, Mark Smith, Ingrid Kovacs, Andrew Weeks** and **Nancy Endersby**. The theme of the conference was "Entomology - Looking Ahead" and three keynote speakers addressed the future in entomology with respect to education and employment. One hundred and thirteen people attended the conference which was held in the Old Arts building at the University of Melbourne. The majority of interstate delegates were accommodated at Queen's College with several others staying at St Hilda's and St Mary's College.

The conference program consisted of 67 contributed papers, three invited introductory papers for the Ecological Genetics, Integrated Pest Management and Entomology in Private Industry sessions, three keynote speakers (**Joanne Daly, Jonathan Majer** and **Greg Buchanan**) and 14 posters. Two somewhat novel activities included a forum on Exotic Incursions and a Student Workshop.

The social program for the meeting included a Welcoming Function at Queen's College as well as a Wine & Cheese tasting extravaganza featuring local products from the Yarra Valley. The Annual Conference Dinner was held in the splendour of the magnificent Dining Hall of Ormond College. Nineteen delegates enjoyed the post-Conference tour to the vineyards of the Yarra Valley despite inclement weather.

Although the organising committee was initially disappointed at the low numbers of delegates registering for the meeting, we realise that our conference was competing with several others held at the same time.

We are grateful to our sponsors: DowElanco, AgrEvo, Rhône-Poulenc and the Entomological Society of Victoria for their valuable support.

A full report on the conference will be submitted to the Executive and will contain some recommendations for future meetings.

Nancy ENDERSBY
Convenor, Organising Committee

ILLUSTRATION COMPETITION WINNERS

Colour Photo

First Prize: **Anthony O'Toole**, QLD. Therevid fly
Second Prize: **Cheryl Mares**, NSW. *Helicoverpa*
Third Prize: **Elisha Ladhams**, WA. *Ambicodamus marae* spider.

SEM

Weerawan Amornsak, QLD. *Helicoverpa* egg

B&W Illustration

First Prize: **Hilda Bryzenski**, NSW. *Rhytiphora argus* Pasq., Cerambycidae
Second Prize: **Douglas Holgate**, NSW. Bee
Third Prize: **Kylie Maybour**, NSW. Ventral view of elaterid beetle.

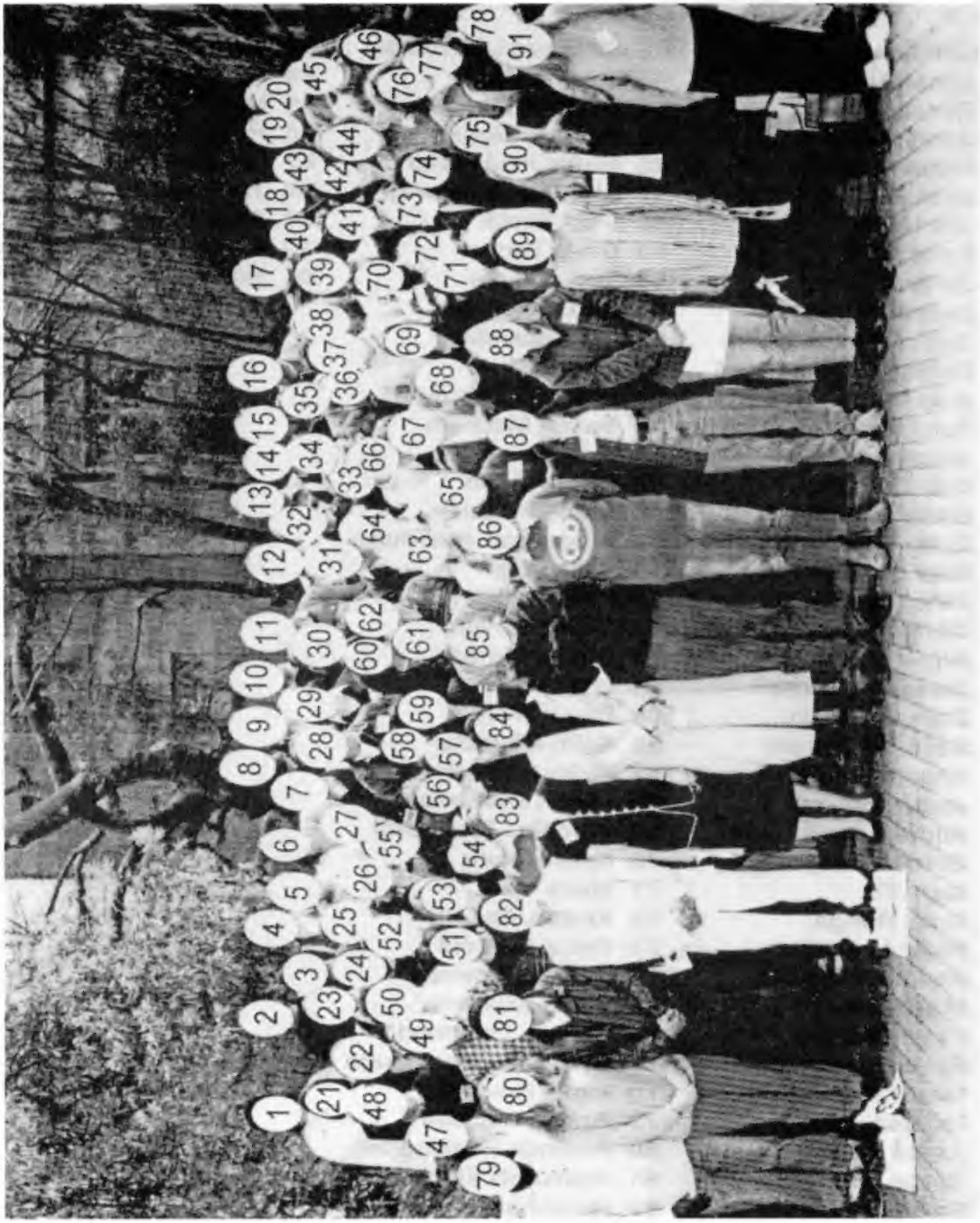
Colour illustration

First Prize: **Michael Shea**, NSW. *Lamprima latreillei* W.S. Macleay, 1819, Lucanidae
Second Prize: **Elisha Ladhams**, WA. *Ambicodamus marae* spider
Third Prize: **Justin Slevin**, NSW *Junonia villida calybe* (Meyrick), Nymphalidae.

Reproductions of the winners in the Black & White and Colour Illustration sections appear on pages 15-17 below.

28th Annual Conference, Melbourne

28th Annual Conference, Melbourne



28th Annual Conference, Melbourne

1. Catherine Symington
2 Adrian Nicholas
3 Renkang Peng
4 Geoff Gurr
5 Richard Bull
6 Jean Bentley
7 Jon Martin
8 Peter Cole
9 Zoltan Lukacs
10 Dennis Hopkins
11 John Gillett
12 Robert Spooner-Hart
13 Alan Clift
14 Tim Heard
15 Jonathan Majer
16 Bob Corcoran
17 Garry McDonald
18 Colin Tann
19 Paul De Barro
20 Peter Gregg
21 Olivia Kvedaras
22 Roger Kitching
23 Alexandre Il'ichev
24 Zamir Hossain
25 Kaye Hergstrom
26 Angela Singleton
27 Jasbir Mann
28 Andrew Sime
29 Gordon Berg
30 Gary Fitt
31 Ross Runge
32 Peter Leach
33 Andrea Wilson
34 Mike Cole
35 Peter Williams
36 Pauline Peterson
37 Marc Coombs
38 Melissa Jess
39 Jamie Seymour
40 Simon Duffield
41 Patrick Huber
42 Sharmeen Tabatabai
43 Joanne Daly
44 Paul Hughes
45 Andrew Weeks
46 Maria José Majer
47 Jonathan Holloway
48 Mark Smith
49 David Brown
50 Tony Clarke
51 Alexei Rowles
52 Ian Endersby
53 Lisa Bird
54 Graham Thwaite
55 Susan McGrath
56 Kyla Finlay
57 Lynne Grbin
58 Ahmad Dahlan
59 Weerawan Amornsak
60 Sally Rice
61 Paul Walker
62 David Steven
63 Cheryl Mares
64 Iain Kay
65 David Walter
66 Keith Chandler
67 Peter Shelden
68 Martin Steinbauer
69 Veronica Brancatini
70 Kylie Hogan
71 Marie Yee
72 Kirsten Abbott
73 Fiona Clissold
74 Nancy Endersby
75 Sarita Kulkarni
76 Patricia Drumond
77 Swarna Hewa-kapuge
78 Ingrid Kovacs
79 Robert Mensah
80 Amanda Hosking
81 Inamullah Khan
82 Mufakhar Hossain
83 Glynn Maynard
84 Jan Green
85 Myron Zalucki
86 Richard Faulder
87 Heather Proctor
88 Tara Simmul
89 Alice Del Socorro
90 Marie-Louise Johnson
91 Robin Gunning

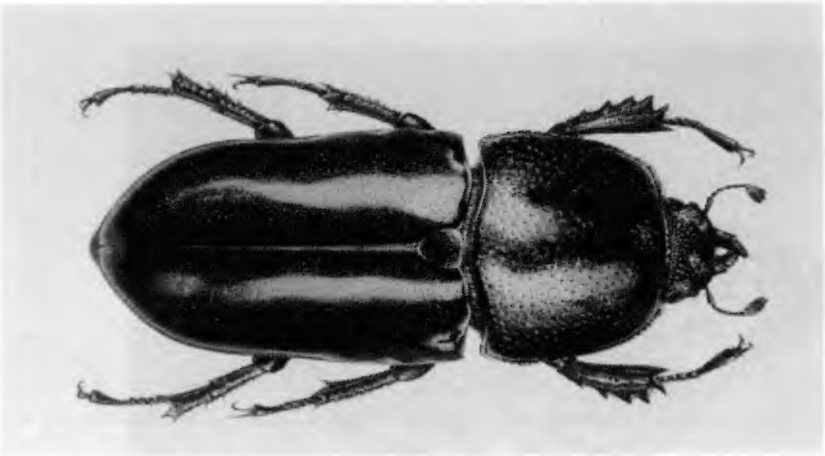
28th Annual Conference, Melbourne
The Annual Dinner

MEMBERS ENJOYING THE ANNUAL DINNER: Top: Innamullah Kahn and Olivia Kvedaras; Bottom: Simon Duffield, Joanne Daly, Gary Fitt and Tony Clarke [Photos: Jasbir Mann]

28th Annual Conference, Melbourne
The Annual Dinner

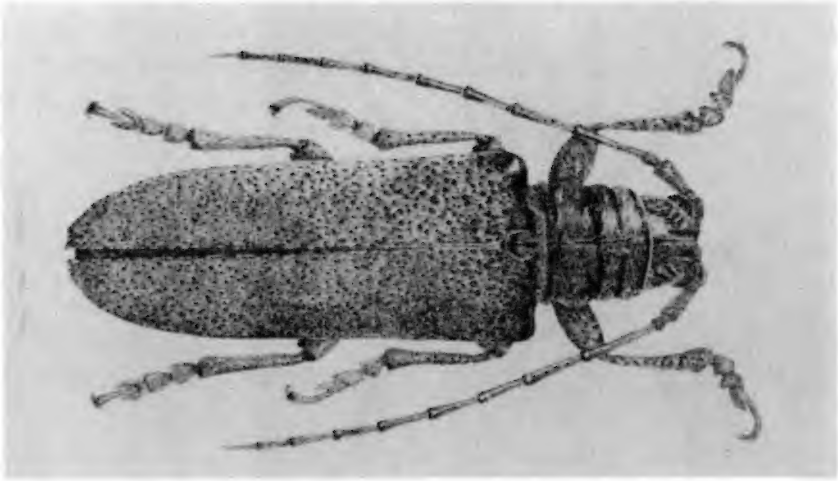
MEMBERS ENJOYING THE ANNUAL DINNER: Top: David Steven (NZ) with Marie Yee and Ingrid Kovacs hanging on his every word; Bottom: Catherine Symington, Zamir Hossain and Geoff Gurr. [Photos: Jasbir Mann]

28th Annual Conference, Melbourne
Illustration Competition Winners



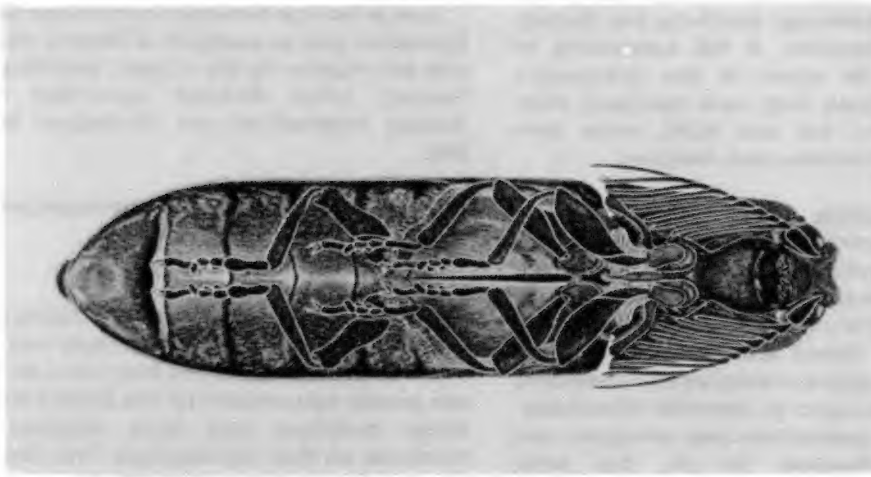
Top: First Place, Colour. Michael Shea, NSW. *Lamprima latreillei.*
Bottom: 2nd Place, Colour. Elisha Ladhams, WA. *Ambicodamus marae*

28th Annual Conference, Melbourne
Illustration Competition Winners



Top: Third Place, Colour. Justin Slevin, NSW. *Junonia villida calybe*
Bottom: First Place, B&W. Hilda Bryzenski, NSW. *Rhytiphora argus*

28th Annual Conference, Melbourne
Illustration Competition Winners



Top: 2nd Place, B&W Doug Holgate, NSW. undet Apidae
Bottom: Third Place, B&W. Kylie Maybour, NSW. undet Elateridae

ANNUAL REPORT 1997

Executive Report 28th AGM

Before going any further the Executive would like to especially thank **Robyn Coy, Nancy Endersby, Fiona Clissold** and **Mark Smith** for organising this AGM and Scientific Conference of the Society.

The Core Executive has met on 16 occasions since taking on their responsibilities at the 27th AGM. Meetings were generally well attended by:

Roger Kitching (President)
David Walter (Secretary)
Veronica Brancatini (Treasurer)
Jennifer Marohasy (Promotions Officer)
Peter Allsopp (Chief Editor)
Heather Proctor (Assistant Secretary)
Myron Zalucki (Vice President)
Toni Withers (Regional Councillor)

New Executives tend to start with great gusto and enthusiasm and this now somewhat less enthusiastic Executive was no exception. Our long term goals are to reinvigorate the Society's flagship Journal, raise membership, stimulate enthusiasm for entomology and bring the Society into the next millennium. A full accounting of membership will be given in the Treasurer's Report, but more than forty new members have been elected since the last AGM, more than replacing the 21 members who resigned.

Changes in Councillors

Resignations among office bearers have also occurred over the year. **Alison Roach** gave up the onerous tasks of the Business Manager after many years of service. Many thanks from the Executive for all her efforts. Alison was replaced by **Mike Jefferies**. **John Jennings** resigned as Promotions Officer and was replaced by **Jennifer Marohasy**. Jennifer's term at promotions was energetic and productive. Unfortunately for us, but most fortunately for her, Jennifer has had to leave us for a new job and this position is currently unfilled.

During her brief sojourn as Promotions Officer, Jennifer helped instigate the Society's promotional poster. The poster is designed to appeal to student members and is on sale for $5 a print. Councillors are invited to take a supply for display and sale. Jennifer also actively promoted the sale of **Murray Upton**'s Society publication, *Methods for Collecting, Preserving and Studying Insects and Allied Forms*. Again we invite councillors to take a supply and get these on sale at local museums, university book stores and commercial book sellers.

Chris Reid resigned as Regional Councillor and was replaced by **Jamie Seymour** in North Queensland. **Marcus Matthews** filled the vacant Regional Councillor position in Canberra. **Jane Elek** replaced **Tony Clarke** in Tasmania. **Francoise Berlandier** filled the vacant Regional Councillor position in Western Australia.

The Regional Councillors are the eyes and ears of the Society. Without their news-gathering for *Myrmecia*, we would all be at a loss for information about members and their activities.

Other Appointments

Jonathan Majer (Conservation Committee) was appointed to liaise with the National Biodiversity Council. **Richard Russell** was nominated by the Society to be a delegate to the Board of Trustees of the International Federation of Tropical Medicine.

Web Page

One of the first initiatives undertaken by the new Executive was to establish a Society Home Page with information on the objects and history of the Society, Office Bearers, upcoming meetings, Society publications and information on how to join:

http://www.uq.edu.au/entomology/gen.info.frame.html

Editorial Board

As part of the long term task of raising the profile of the Journal, the Editorial Board was updated. The many years of service from the editorial board are greatly appreciated by the Chief Editor and all those members that have received detailed feedback on their manuscripts. The new Editorial Board is greatly expanded and includes entomological expertise from around Australia and the Pacific. The Journal workload in taxonomy and systematics is particularly heavy and we are still seeking additional members in these fields. The new Editorial Board is actively soliciting review and essay articles to increase general interest in the Journal.

A reminder - the Journal does accept abstracts

of postgraduate theses. This is a great way for students to announce their successful studies to the Society, members and prospective employers (see Editor's Report).

The next AGM is being organised in conjunction with the AAERC in Brisbane in September 1998. The committee has been formed and plans are well advanced.

A Note on Student Prizes

Student prizes have never attracted a great deal of attention from either supervisors or their students. Few nominate themselves! This year's response has been especially bleak (none!) One possible way around is to automatically consider papers submitted by students to the Journal as being eligible for consideration.

David WALTER
Secretary

Report of the Chief Editor

Production statistics for Volume 35 of the *Australian Journal of Entomology* for the year 1996 were:

Part	Published	Pages	Papers	Reviews
1	29 Feb	96	14	0
2	31 May	96	14	3
3	30 Aug	96	17	3
4	30 Nov	96	13	3

The total number of pages (384) was the same as in volume 34 and about the average of the last five volumes. The number of pages ready for publication and accepted so far for 1997 has allowed the first three parts to total 308 pages.

Publication schedules have been maintained with all parts published in the months specified in the constitution. Schedules have been maintained in 1997.

During 1996 the flow of manuscripts was (1995 in parentheses):

Manuscripts received	69	(65)
accepted	66	(48)
rejected/withdrawn/ lapsed	7	(10)
with Tech. Editors	49	(52)

The number of manuscripts received during the year was slightly up on that received in 1995 and reversed the downward trend of the last few years. Acceptances were relatively constant through the year, with enough material at the end of 1996 to fill at least the first two issues of 1997.

Volume 35 was the first published under the new name *Australian Journal of Entomology*. This change has taken the journal somewhat away from its narrow parochial image. During 1997 we have appointed a new, expanded Editorial Board, comprising 20 eminent, younger scientists from a wide diversity of institutions in Australian and the southwest Pacific. The new board will not only act as one referee on each manuscript, but will also solicit high-quality manuscripts from their home institutions. Papers with volume 35 are now grouped into subject categories within the journal and on the contents pages.

Alan Andersen, Alan Bishop and **Tony Wapshere** have continued to give excellent service to the Society as Technical Editors. **Ken Walker** joined the team at the last AGM following the retirement of **Ian Naumann**. I thank them all for their continued service.

The editorial assistance of **Jenny Allsopp** and the production team of **Ron Page** (ATA Riverside Graphics) and **Steve Gould** (Watson Ferguson) have been vital in the smooth running of the journal and in meeting production schedules. I thank them all.

The journal remains in good shape with a reasonable flow of diverse manuscripts. Good-quality manuscripts are always welcomed. I would also like to see more review or viewpoint papers that are important in generating discussion and making the journal relevant to all members.

Peter ALLSOPP
Chief Editor

Report of the News Bulletin Editor

The recent history of *Myrmecia* has included a large number of changes, firstly of editor from Brisbane to Sydney, then of printer and distributor from Brisbane to Sydney, then of distributor from "in-house" to Ozanam, then the printer moved from Castle Hill to Granville. Over the last year, with the closure of BCRI Rydalmere, the editor has been moved from Sydney to Orange and a new printer in Orange has been found. Rumblings from the Core Executive to outsource production of the Society's publications, including *Myrmecia*, hint at even further possible changes. I am not sure that change can be equated with progress in such cases but I am happy to go along with whatever method of production the Society requires.

Members will have noticed that the February

issue, which was produced over the period of my relocation and during preparation for the 9th International Auchenorrhyncha Congress at the end of February had a few deficiencies, not least of which was the absence of the title from the front cover. I couldn't believe it myself when I picked it up from the printer, but it was too late to do anything about it at that stage, so the February issue remained nameless.

The business side of *Myrmecia* production has been streamlined so all financial transactions are now undertaken by the Treasurer. This avoids the production of two sets of figures for *Myrmecia* each AGM, one from the Treasurer in the audited accounts of the Society and one from the Editor from his records.

As for the content, I am aware that functions such as the Auchenorrhyncha Congress in February this year and the opening of the new Scientific Collections Building at Orange have had more publicity in *Myrmecia* than may have been the case with a different editor. However, I do not create this bias entirely on my own. I am prepared to publish photographs of any entomological occasion involving Australians. An example was the IXth International Symposium on Biological Control of Weeds held in South Africa which featured in the February 1996 issue of *Myrmecia*. **Colin Wilson** sent me the photographs, so I published them. I therefore urge members to send me photographs to illustrate their activities. If I can tie the photographs to your Regional Councillor's report, even better. *Myrmecia* is a much more enjoyable publication to read if it has photographs scattered through it and it doesn't create too much more work at this end. I also request Regional Councillors to chase up photographs when they know that something notable has happened in their region. (Please note that I will maintain some editorial standards and draw the line at publishing photographs of entomologists' new babies and such like).

I again thank the Regional Councillors for their continuing efforts in providing the bulk of the information that goes into *Myrmecia* and also thank them for providing this information in a readable and often entertaining way. **John Macdonald**, as Assistant News Bulletin Editor, is looking after the stocks of older issues and takes this load off my shoulders. With new Business Manager **Mike Jefferies** now getting on top of the subscriptions, John has been kept busy mailing out past issues to members who, for one reason or other, didn't receive them at the time of issue. I also acknowledge the support of the Brisbane Executive, particularly **Dave Walter** and **Veronica Brancatini**.

I thank G.K. Craig Printers who, after a hesitant start with the February 1997 issue, have proved themselves to be a most professional company and in particular, **Tony Hawkins**, their manager, who has been very cooperative and helpful in his work with *Myrmecia*. **Margaret Daniels** produces the sticky address labels directly from a copy of the membership list provided by **Veronica Brancatini** for each issue. This ensures that the addresses used for each mailing are as up-to-date as is possible. Margaret also delivers the labels to Ozanam on our behalf at no extra cost to the Society. Finally, I thank **Jay Nair** and his staff at Ozanam Industries in West Ryde, Sydney, who undertake the onerous task of assembling each issue for posting and with whom it has always been a pleasure to do business.

Murray J. FLETCHER
News Bulletin Editor

Report of the Treasurer

As in the past, all the accounts have been combined so that the overall position of the Society can be seen.

BALANCE SHEET

The Society's accounts for 1996 have not yet been audited. The delay in auditing is due in part to the change in Treasurer and Business Manager. The account details will be sent to the auditor after the AGM. It is unlikely that the auditor's report will be ready for the November issue of *Myrmecia*. The Balance Sheet presented to the AGM was therefore only a draft. I have attempted to follow the accounting procedures of past years as closely as possible but there may be an adjustment after auditing.

FINANCIAL POSITION

The Society is in a worse financial position than in previous years. The Society's assets have deteriorated further in 1997. This condition is likely to continue unless changes are made. Even with the increase in subscription rates, increasing costs combined with decreasing income have taken their toll. A drop in membership and failure to pay membership dues by a number of members in

1997 has further contributed to our poor financial state. IF YOU HAVE NOT PAID YOUR 1997 SUBS AND ARREARS, PLEASE DO SO.

JOURNAL

The cost of the journal to members is rising, while sales and institutional income are not. In 1996, members contributed $15,000 for the production of the journal and a further $7,847 towards editorial costs. These costs have risen further in 1997 and, with $20,000 now required to cover production costs and approximately $9,000 towards editorial, further increases are expected in 1998. With the drop in Society membership, each member now contributes approximately $38 to the journal and $12 to the bulletin.

The number of institutional subscribers in 1997 was approximately 190. It is not clear whether this is an increase or decrease from the previous year.

SUBSCRIPTIONS

1996 income from subscriptions increased significantly from the previous year. The same cannot be said for the current year's income. As voted by members, 1997 Subscription Rates were increased to:

Full members and Affiliated Societies	$60
($5 discount if paid by 1 Jan 1997)	
Retired and Student members	$27.50
($5 discount if paid by 1 Jan 1997)	
Joint Members	$65
($5 discount if paid by 1 Jan 1997)	
Sustaining Associates	$250
(no change)	
News Bulletin only	$20
(no change)	

Membership was due and payable on 1 January 1997. To date (26.9.97) only $34,727 has been received. 161 members have not yet paid their 1997 subscription. These members owe the Society a total of $9,870. 52 members have been excluded from the Society for non-payment. These individuals owe $7,320.

OTHER ITEMS

My apologies to our editors for the delay in sending the membership database. This resulted in the late mailing of the Journal and the Bulletin last year and earlier this year. It has taken almost a year for me to work out how and what the Treasurer is expected to do. This of course is no guarantee of perfection or reliability in the future.

Thanks are also due to the past and present Business Managers, **Alison Roach** and **Mike Jefferies**.

MEMBERSHIP

Membership of the Society is set out in the following table.

	26.ix.97	31.vii.96
Full members	546	589
Student members	94	100
Retired members	100	90
Joint members	11	9
Honorary members	6	6
Affiliated Societies	3	3
Sustaining Associates	4	5
TOTAL	764	802
News Bulletin only	9	12

There were 16 resignations from the Society. There has been a steady decrease in membership since the peak in 1993 of 856 members. During this period Sustaining Associates dropped from 7 to the current 4.

Veronica BRANCATINI
Hon Treasurer

Report of the Conservation Committee 1996-97

This year the Conservation Committee comprised 10 members, namely **Tim New, Robin Coy** and **Paul Horne** (Victoria), **Eric Mathews** (South Australia), **Alan Aldersen** and **Peter Dostine** (Northern Territory), **Genevieve Carruthers** (Australian Capital Territory), **Robin Gunning** and **Geoff Williams** (New South Wales), plus **Jonathan Majer** (Western Australia). In addition, the President and the Secretary are *ex-officio* members of the Conservation Committee.

Although few activities have been carried out under the specific banner of the Conservation Committee, members have been active in their own right on insect conservation matters.

Robin Gunning has continued as our representative on the NSW Scientific Committee set up under the NSW Threatened Species Act (1995), which has been in operation for approximately 18 months. The independent NSW Scientific Committee maintains the schedules of threatened species. While terrestrial vertebrates and plants dominate the lists, they also include a small but growing number of invertebrates: three snails, (*Therites mitchellae, Platystylus bivaricosus*

and *Meridoum corneovirens*) and three insects (*Synemon plana*, *Paralucia spinifera* and *Dryocelus australis*). The Giant Dragonfly, *Petalura gigantea* is also provisionally listed as an endangered species. In addition, the Scientific Committee is able to commission consultancies to provide answers to some pressing problems and has recently funded a project to resolve the taxonomy and conservation status of some Collembola in NSW. Nominations have flagged a number of problems for the Aust. Ent. Soc. representative on the Committee. Obstacles have included: a basic bias in the Act toward terrestrial vertebrates, a lack of knowledge of invertebrates (due to taxonomic and other impediments), the preclusion of consideration of most aquatic invertebrates, the need to protect habitat rather than individual species, a lack of involvement of professional entomologists in the process and potential limitations to the activities of insect collectors. However, as the novelty of listing invertebrates diminishes, these problems will probably be resolved.

Jonathan Majer has joined a parallel committee in Western Australia - the Threatened Species Scientific Committee - which was set up under the WA Wildlife Conservation Act. A number of invertebrates have been listed, including molluscs, spiders, crustaceans, millipedes, crickets and native bees. Many additional nominations are in the pipeline but, as in NSW, the Committee is hampered by paucity of distributional data and taxonomic uncertainty. **Eric Mathew**'s activities have not been in conservation as such, so much as in biogeography. However, he believes it behoves us as taxonomists to point out the historically significant areas of Australia which deserve special conservation effort in order to save the really ancient taxa, which must have priority. To this end, he has been locating the areas of generic endemism in Tenebrionidae, of which there are just 10 in Australia, and then determining the relationships of their inhabitants where possible. The oldest taxa have just external relationships (not within Australia) between areas of endemism but the oldest element is what he is calling the Tethyan, one which he believes has not received much recognition (unlike the Austral and Papuan elements). There is just one confirmed Tethyan area of endemism in Australian Tenebrionidae and it is in Western Australia from Perth northward to the North West Cape, inland to the Robinson Ranges and Lake Austin. The relationships of the oldest endemics of that area, which belong to six unrelated tribes, are with the southern Palaearctic and northern Africa (essentially the Mediterranean) and beyond them to northern South America and southern North America (essentially the Caribbean). All are arid-adapted and in Australia most are myrmecophilous. There is then a younger (austral) endemic element in the same area as well, related to mesic McPherson endemics. He believes we should highlight the importance of the above area which, in his opinion, rivals that of Kakadu and the Wet Tropics. **Tim New** is spending most of his time on the conservation bureaucracy these days. Relevant activities include: ESAC/ESSS Membership, Victorian TSN Management Committee, editing *Biological Conservation*, founding Editorial Board of *Journal of Insect Conservation*, seeing through the new edition of *Butterfly Conservation* which has just been published (OUP, Melbourne), continuing involvement in projects on butterfly conservation, assessment of grassland and woodland assemblages, dragonfly essay, setting conservation priorities, etc, in Victoria. Occasionally, but increasingly rarely, he is able to look at an insect. **Alan Andersen** has supervised an NTU Honours (**Ben Hoffmann**) project on the impacts of the introduced ant *Pheidole megacephala* in a rainforest patch near Darwin. *P. megacephala* has eliminated virtually all native ants in some areas and has a major impact on other native arthropods. It is continuing to spread into uninfested areas. More recent work on chemical control has yielded extremely positive results and there are very real prospects for the total elimination of this infestation, without harming native species.

As I have mentioned before, the activities of the Conservation Committee are partly driven by information received from Society members. Members are encouraged to contact the Convenor if they believe that any issues should be addressed. They are also encouraged to nominate to **Robin Gunning**, myself or other relevant State or Territory entomology representatives any species which they feel should be considered for listing as rare or endangered in the appropriate State or Territory.

Jonathan MAJER
Convenor
Conservation Committee

REGIONAL NEWS

AUSTRALIAN CAPITAL TERRITORY

Australian National Insect Collection

Ebbe Nielsen and **Marcus Matthews** were in India for the first two weeks in August to discuss the biosystematics of heliothine moths. Ebbe was in Montreal 27 August - 9 September for SBSSTA, and then in Adelaide 3-4 October for the meeting of the Council of Heads of Australia Fauna Collections. **Judith Hull** is away until 1 December, replaced by **Danielle Gilroy; Walter Dressler** retired from the ANIC in September. **Matt Coloff** flew to Oslo at the end of August at the invitation of the Norwegian Government to give advice on dust mites; Matt is now NR&B deputy program leader. **Peter Cranston** was in Germany for the 13th International Symposium on Chironomidae and in Adelaide 28 September to 3 October for the ASBS/SASB meetings. Pete is now on long service leave in WA until 7 December.

Jim CULLEN, Acting Chief
CSIRO Division of Entomology

Ebbe Nielsen and **Steve Shattuck** visited St Louis, USA 14-17 October to discuss bioinformatics development. Steve went on to the Museum of Comparative Zoology, Harvard to talk ants. **David Rentz** delivered the Perkins Lecture to the Queensland Entomological Society in September and he and **Richard Millner** were at the Orthopterists' conference in Cairns at the end of October.

Hari Sutrisno (Zoological Museum, Bogor, Indonesia) has begun a three year stint in the ANIC, to complete his graduate diploma and then embark on an MSc.

Rolf Oberprieler left South Africa in late August with his family to take up his position at the ANIC. He will be working on weevils but intends to keep his night job too on the biology of saturniid moths.

Arturo Goldarazena, University of Navarra, Spain visited **Laurence Mound** to work on thrips. During October, **Andras Szito** (Agriculture WA) worked on dermestids and bruchids with **Andrew Calder**, and **Bill Knight** (The Natural History Museum, London) and **Murray Fletcher** (Orange Agriculture Institute) worked on leafhoppers with **Max Day**.

Marianne Horak is away in London and Leiden until early December, and **John Lawrence** has left for the US and Europe also until early December. **Klaus** and **Edith Sattler** have joined us for four months to continue Klaus's work on Australian gelechiid moths.

With Spring upon us and with it the multitude of European wasp enquiries, **Kim Pullen** has leapt into action in his role as Identification and Advice Officer.

In the 1997 Whitley Awards two books by ANIC staff have been selected by the Royal Zoological Society of NSW. **Ebbe Nielsen, Ted Edwards,** and **Vanna Rangsi** were rewarded for their editorial work on the *Checklist of the Lepidoptera of Australia*, CSIRO Publications, (Best Checklist category) and **David Rentz** for his book

Grasshopper Country, UNSW Press, (Best Invertebrate Zoology category). With an eye on next year's Booker, **Murray Upton** has completed the manuscript for his comprehensive and thrilling best-seller-to-be on **The History of the ANIC** - place your orders now to avoid disappointment!

CSIRO, Division of Entomology

Paul Wellings is on secondment to DIST from 13 October and **Jim Cullen** is Acting Chief of the Division. **John Curran** is now Assistant Chief.

David Dall attended the TCDC International workshop on biofertilisers and biopesticides at the Indian Institute of Technology in New Delhi in mid-October. **Ray Ackhurst** spent 3 weeks in China and Vietnam talking with collaborators about Bt insecticides.

Peter Christian visited USDA Beltwide Cotton Conference in October and **Steve Whyard** was in southern France establishing and developing techniques for genetic transformation of prawns and shellfish.

Marcus MATTHEWS
Regional Councillor

John CURRAN, Assistant Chief
CSIRO Division of Entomology

Australian Quarantine and Inspection Service

Alison Roach commenced with AQIS, Plant Quarantine Policy Branch in a temporary position in October. **Glynn Maynard** and **Kay Lindsay** attended the AQIS Quarantine Entomologist meeting in AQIS Brisbane Headquarters, Spring Hill, 22-23 September, and the following workshop on thrips of quarantine concern run by **Laurence Mound**. The workshop was specifically arranged for AQIS entomologists and all participants said it was an extremely useful and enjoyable course. It was held at the Entomology Department at the University of Queensland. Glynn also attended the CHAEC meeting in Adelaide and the Aust. Ent. Soc. Conference in Melbourne.

Division of Botany & Zoology, ANU

In late July, **Claire Stephens** started her Honours project on grasshopper assemblages in natural temperate grasslands of the ACT region, supervised by **Penny Gullan, Andy Sheppard** and **Dave Rentz**. At the same time, **Erica Willis** commenced her Honours with **Peter Cranston** and is studying seasonal and diel emergence patterns of Chironomidae in montane streams in the Brindabella Range. **Stuart Dennis** commenced his Honours project on the stomatogastric nervous system of the black field cricket, supervised by **Paul Cooper**, and **Ian Morphett** began an Honours project with **Bill Foley** on predicting the susceptibility of eucalypts to defoliation by beetles.

Also in July, **Hari Sutrisno** started his Graduate Diploma in Science course co-supervised by **Penny Gullan** and **Marianne Horak**. Hari is based in CSIRO Entomology where he is studying the biology and taxonomy of some Australian pyraustine moths (Lepidoptera: Pyralidae).

Penny Gullan attended the Systematics

conference in Adelaide in late September-early October and then drove on to Perth for 2 months of Outside Studies Program Leave. While in Perth she is based at the Zoology Department at the University Western Australia.

Australian Plague Locust Commission

Gordon Hooper retired as Director on 22 September so bringing to a close the second chapter of the organisation. Gordon joined in 1986 from University of Queensland and found the APLC a rather different kettle of fish. He has, however, enjoyed his years here. All APLC staff and Commissioners gathered in August to wish him well for the next phase of his career. **Graeme Hamilton** is Acting Director until a permanent replacement is made. **Tom Hogan** visited in October to discuss his pioneering work on aerial spraying. **Rod Elder** visited **David Hunter** to progress a joint publication.

Glynn MAYNARD
Regional Councillor

NEW SOUTH WALES

Centre for Entomological Research and Insecticide Technology (CERIT)
University of New South Wales

In September, CERIT coordinated an industry briefing symposium on the topic "Insects and Human Health in Australia". In attendance were over 60 people from many and varied fields. The aim of the symposium was to bring product manufacturers, pest managers and health professionals up to speed on information relating to insects and health in the Australian context. An emerging area of particular concern was mosquito-borne arboviruses.

Nicole Honeyman has returned to Sydney from Brisbane where she was working with the Army Malaria Research Institute to join the CERIT staff. Her expertise in mosquito cultures is greatly appreciated. In November we shall be saying farewell to **Mads Mourier** (CERIT Visiting Fellow) who leaves for a tour of Tasmania before returning home to Denmark. During his stay he has carried out research on natural product insect control chemicals and participated in the commercial program of the centre. His help and friendliness will be missed!

Chris Orton has been invited to join the State Committee of the Industry Training Advisory Board (Pest Control ITAB). This committee is currently focussing on the new competency standards for pest control operators.

Internal reorganisation of UNSW schools over the past year has resulted in enlargement of the faculty group to which CERIT belongs. From July 1st, our faculty has become "Faculty of Life Sciences" under a new Dean Professor **Merilyn Sleigh**.

CSIRO's merger of divisions, now sees **Chris Virgona** and **Hieu Nguyen**, as part of CSIRO Molecular Science, continuing a long standing collaborative arrangement with UNSW through CERIT.

Chris Orton and staff continue CERIT's industry liaison program with a company visit to SC Johnson & Son Pty Ltd (**Dennis Oswald, Dorota Jakubik** & **Bob Yokum**). Recent visitors have included: **Vince O'Brien**, Termite Pty Ltd; **Noble Mathew**, Johnson & Johnson Pacific Pty Ltd; **Mario Abela, Michael Gibian, Micky Urosevic**, Reckitt & Colman Australasia; **Lindsay Whitmore,** Southampton University; **James Walker**, AQIS; **Frank Leong**, CSIRO Building & Construction; **Don Ewart**, Granitgard Pty Ltd; **Neil Galbraith, David McCullough**, CSIRO Molecular Science; **John Boevink,** Botanical Resources Australia.

Murray-Darling Freshwater Research Centre, Albury, NSW

In August **John Hawking** returned from a six week stint in Europe where he attended the 14th International Symposium of Odonatology in Maribor, Slovenia, presenting a seminar on the conservation of Australian dragonflies. A few days were also set aside for field studies and John was pleased to have this opportunity to collect European species while noting the Australian dragonfly fauna is very diverse in comparison. John was also able to visit the SIO central library in Amsterdam and the British Museum to look at dragonfly collections and literature.

The Australian Society of Limnology (ASL) Annual Congress was held in Albury on the 27-29 August and was again a great success with approximately 260 people in attendance. The dinner and bush dance held on Sunday night was enjoyed by all. The Ecological Society of Australia (ESA) conference was held at the same venue immediately following ASL and proceeded successfully with approximately 450 people in attendance. Many stimulating seminars were

presented at both conferences with new networks being established between people from all over Australia as well as those from further afield.

The Tenth Taxonomic Workshop ("a decade of bug identifications") is being held at the CRC/Murray-Darling Freshwater Research Centre (Albury, NSW) on the 10-12th of February, 1998 (see "Coming Events" for more details).

Diane CROWTHER

Orange Agricultural College

Geoff Gurr accompanied **Zamir Hossain** and **Lindsay Baggen** to the Fiftieth New Zealand Plant Protection Conference in August. The event attracted several international authorities including **Jeff Waage, Paul Jepson** and **David Pimentel**'s "virtual presence" (by audio tape and slides). A major "take-home" message of the conference was that the Kiwis recognise both the sustainability and the international marketing implications of pest management approaches and are setting in place research, legislation and guidelines (e.g. "eco-labeling" of produce) to enhance performance. It seems clear that they will increasingly be able to demonstrate that their "clean and green" claims are much more than rhetoric. I wonder how well we compare?

50th NZ Plant Protection Conference: L to R: Steve Wratten (NZ), Geoff Gurr (NSW) and Jeff Waage (UK).

Just a month after this, Professor **Steve Wratten** (Lincoln University NZ) visited Orange Agricultural College as part of Department of Industry Science and Tourism funded project designed to develop habitat manipulation approaches to enhancing biological control of crop pests. Whilst there he presented a seminar on what messages we Australians could draw from recent progress in New Zealand.

Noted insect ecologist **Anantanarayanan Raman** (formerly Madras University) recently joined **Geoff Gurr**'s group at Orange Agricultural College as a Research Associate. He will help inject a stronger ecological flavour into the ongoing pest management research taking place there.

During the Australian Entomological Society Conference week **Geoff Gurr** took off a day to visit **Paul Bailey**'s lab at Monash University to check on recent progress in an ongoing collaborative project. **Chulani Fernando** is the latest postgrad involved in teasing-out the tri-trophic interactions of potato moth, its hosts and its parasite, *Copidosoma koehleri*. Things are getting increasingly interesting and first batch of results will be published soon.

Geoff GURR
Regional Councillor

Orange Agricultural Institute

Danuta Knihinicki has returned from 10 weeks overseas, partially supported by the AES. During her trip, she visited Poland where she worked with **Jan Bocsek**, the acknowledged world authority on

the mite family Eriophyidae. Danuta also managed a brief visit to **Jim Amrine**, also an acknowledged authority on Eriophyidae, in West Virginia. Danuta is now putting all her hard-earned knowledge together as she writes up her MSc work.

Bill Knight spent three weeks in Australia to work with **Murray Fletcher** on deltocephaline leafhoppers and to catch up with **Max Day** and fellow BM escapee **Laurence Mound** in Canberra and **Fred McDonald** in Sydney. **Laurence Mound** also visited Orange to finalise production of the "Identification Guide to Thrips Associated with Crops in Australia" jointly authored with **Peter Gillespie**.

Dr **Soon Wong Lee**, of the Taegu Apple Research Institute in South Korea, spent a week with **Graham Thwaite** looking at IPM in apple orchards and also presented a seminar on the entomology of apple production in South Korea to the scientific staff of OAI.

Other visitors to the Institute included a large contingent from the Entomological Society of New South Wales who spent a weekend in Orange to visit the Scientific Collections Unit and look through the collections. The weekend included a barbecue lunch, hosted primarily by **Graham Thwaite**, an outline of the collections and their significance to both science and NSW Agriculture by **Murray Fletcher** and a guided tour of the collections hosted primarily by **Peter Gillespie**.

The conference week saw the entomology staff of the Institute scattering all over the place, with **Jasbir Mann** and **Graham Thwaite** attending the AES Conference in Melbourne, **John Macdonald** attending the CHAEC meeting and SASB Conference in Adelaide and **Peter Gillespie** and **Bernie Dominiak** heading north to study fruitflies with **Dick Drew**.

NORTHERN TERRITORY

Department of Primary Industries and Fisheries, Pastures Division

Debbie-Sue Van Rangelrooy has taken flight! She has come to realise her true talents and is positively glowing. Apart from singing like an Cicada with broken wings in the local choir, she has adapted to the remote locality of Tennant Creek and become somewhat of a local legend with her famous flights in the Duck Darts team. Somehow, the Duckies have made it into the finals. Was it the way she flapped her arms about to distract other teams or did eleven other teams withdraw from the competition or maybe she was gathering tips from the fruit flies she has been collecting over the past two years. And you thought Tennant Creek was a sleepy place with nothing to do.

Quarantine Inspection Branch

Non-entomological matters, namely Panama disease of bananas, took up much of **Ted Fenner**'s time this quarter, but the insects struck back late in the piece with the exotic mango leafhopper, *Idioscopus nitidulus*, being found on backyard trees over a wide enough area of suburban Darwin that eradication is not on. But, not to be outdone, the Queenslanders had to go and find the same insect at Weipa a few weeks later. Now, don't go jumping to conclusions here, as there is no evidence of a connection between these events (although the possibility that one may exist can't be ruled out). Prima facie, however, PNG via the Torres Strait islands is the probable source of the Weipa outbreak, whereas the Darwin population is more likely to have come from eastern Indonesia, perhaps Timor.

As well as being part of the sharp end of the recent exotic outbreaks, Ted had the opportunity for a more analytical examination of such issues while attending the Quarantine Entomologists' meeting in Brisbane with such specialists from around the country and, later, discussions with **Keith Jorgensen** and **John Donaldson** of QDPI on the recent specific problems.

Entomology Branch

Lanni Zhang and **Graham Young** have managed to demonstrate that the productive life of snake bean crops can be increased up to 13 weeks by using *Phytoseiulis persimilis* and petroleum spray oils to control two spotted mite. The productive life of the crop using conventional control of two spotted mite is between 2 and 6 weeks. They have yet to convince growers that prophylactic sprays, to control "mythical" leaf feeding insects, are unnecessary. However they remain optimistic.

Northern Australia Quarantine Strategy

Glenn Bellis has spent more time away than at home over the past few months. He spent 1 week in the north of WA, 4 weeks searching for nasty insects in Irian Jaya, 1 week looking to see if any

of these had snuck across to Torres Strait and 3 weeks holidaying in Central Australia trying to resurrect his marriage after being away from his family for so long. He decided that the next NAQS survey should be in Darwin so that he can spend some time at home.

Territory Health Services
Medical Entomology Branch

The mosquito control season has begun in earnest around Darwin with **Gwenda Hayes, Barbara Love, Jane Carter** and **Ross Nowland** already having conducted two aerial sprays for salt marsh mosquitoes in Leanyer swamp in September and October. They have achieved very good control to date with hardly a mossie left to bother the suburbs adjacent to the swamp.

Gwenda Hayes is nearing completion of the major stage of the entomology database which will coordinate the results of most of the various branch activities into one system. Gwenda has done a great job and is conducting the initial testing, with impressive results.

Peter Whelan and **Brian Montgomery** have just put the finishing touches to the mosquito engineering plans for the pre wet season works to maintain the extensive drain system around Darwin and to rectify some more of the longer standing sources of mosquitoes. Peter attended the arbovirus workshop at Mt Macedon in August and the Society for Vector Ecology meeting at Orlando Florida in October where he presented a paper on the vector aspects of the first Barmah forest outbreak in Australia at Nhulunbuy in the NT.

The branch had a visit from **Henry Dowler** from the New Zealand Ministry of Health in August to discuss exotic mosquito exclusion and eradication. Visitors also included **Hiroshi Yamanishi** and **Katsuyuki Yamaguchi** from Kobe Japan to look at tabanids and mosquito species to test arbovirus competence.

NT Museum

Graham Brown has very little to report this quarter, although he does admit to having taken an interest in fig wasps of late. When not straining his eyes to extract the little buggers from the fruit of the small figs that grow in NT, he has been preparing for a new museum gallery and the expected onset of visitors in the next month or so.

Glenn BELLIS
Regional Councillor

S.E. QUEENSLAND

Forestry Research Institute

Brenton Peters, supervised by **Myron Zalucki** (UQ), has been awarded his MAgrSc on "Aspects of management of subterranean termites in Queensland". Techniques were developed to quantify the change in termite responses in the field to preservative-treated softwoods (thus evaluating the protective values of such treatments) and to softwoods conditioned by decay fungi or heat (thus evaluating the potential of such conditioning to produce termite monitoring and aggregating devices for use in termite baiting).

Brenton Peters, Judy King and **Ross Wylie** have written a book entitled "Pests of Timber in Queensland" (Queensland Forestry Research Institute, Department of Primary Industries, Brisbane, 1996, 175pp. rrp $25) which provides information on identification, pest biologies and economic importance of termites and borers. There is a growing trend in the community away from a heavy reliance on chemical pesticides and towards the use, where possible, of a combination of pest management practices. In this definitive work on Queensland pests of timber, the authors have emphasised an integrated approach. The book is intended for use by householders, pest controllers, the timber industry, architects, builders, government authorities and students and is a must for all who have an interest in timber and its protection. (And how is that for a good plug.)

QDPI, Rockhampton

Rod Elder, DPI's long serving Rockhampton research and extension entomologist, retired at the start of August. Rod joined DPI in 1964 in Atherton where he studied the biology of the pasture webworm and developed strategies for its management. In 1971 Rod transferred to Rockhampton to work on the spur-throated locust which was in plague proportions at the time. His work encompassed studies of the biology, behaviour and control management of the locust and the expertise he developed was again used in the outbreak of 1995-96. In more recent years Rod worked on sorghum insects, leucaena psyllid and, in collaboration with **Dan Smith**, he successfully introduced a wasp parasitoid for the control of oriental scale on pawpaws. Rod edited and co-edited several widely acclaimed extension books on horticultural and field crop pests.

But does Rod intend to take things quietly in retirement? No way. He is working casually 2 days per week on 11 papers on a range of topics from scales to papaya agronomy. They finalise work he had underway for DPI. He recently spent 3 days in Canberra with **David Hunter** from the Australian Plague Locust Commission putting finishing touches to a paper looking at the causes of spur-throated locust outbreaks. The paper brings together their previous work on the locust and makes use of the extensive surveys (since 1980) undertaken by the PLC and more irregular surveys and records prior to that by a number of organisations.

Rod's colleagues in Rockhampton obviously were keen to see him go for they had his farewell function, a "Come as your favourite insect" fancy dress party, in May! A motley collection of specimens that would have bluffed the best of taxonomists flew and crawled in. The arrival of staff of a well known firm of pest controllers caused some consternation. Rod was resplendent as a fluorescent green caterpillar which metamorphosed mid evening into a beautiful butterfly. But what happened to the pupal stage?

QDPI, Emerald

Richard Sequeira reports that INGARD cotton will be able to be grown in central Queensland this season following the success of his and his colleagues' work in developing resistance management strategies. The strategies involve growing pigeonpea as a summer trap crop and chickpea as a winter trap crop for heliothis.

QDPI, Indooroopilly

Pat Collins was invited to give a paper in the "Preservation of Quality" session of the International Wheat Quality Conference held in Manhattan, Kansas, USA, 18 - 22 May, 1997. He was asked to talk about his experiences implementing IPM in the private sector. The title of Pat's paper was: "Strategic Planning for Effective Integrated Pest Management in Private Industry: A Case Study". **Barry Bridgeman** from GRAINCO was co-author. While in the USA Pat spent more than a week talking with staff of the Biological Research Unit of the USDA's Grain Marketing and Production Center, in Manhattan and the USDA laboratories in Fresno, California where he gave a seminar.

Merv Bengston and **Pat Collins** travelled to China in June this year to discuss progress in the ACIAR funded project "Phosphine resistance in pests of stored grain". They visited project collaborators at the Grains Institute in Chengdu (Sichuan Province), the Grains and Oil College in Zhengzhou (Henan Province) and the Guangdong Institute of Cereal Science in Guangzhou. They also visited grain storages in Longmen and Yichang. During the trip they travelled by boat along the Yangzi River through the famous "Three Gorges".

Merv Bengston and **Greg Daglish** made visits to Indonesia during September and October to participate in ACIAR-funded field trials in rice stores in Jakarta and West Java. The project is nearing completion and Greg and **Barry Longstaff** (CSIRO Canberra) will make an end of project trip in December. The project has resulted in large scale field trials on insect populations and phosphine fumigation of milled rice (DPI), and the development of decision support and teaching software (CSIRO and CTPM).

Chinese visitors Mr **Liang Yong Sheng**, Mr **Qin Zhang Gui**, Mr **Bai Xu Guang**, and Mr **Li Fu Jun** spent 20 to 31 October in Australia in relation to an ACIAR project on phosphine resistance in grain insects. Liang and Qin are from the Chengdu Grain Storage Research Institute, Bai is from the Zhengzhou Grain College and Li is from the Chinese Ministry of Internal Trade. They spent most of their time at Indooroopilly with **Merv Bengston, Greg Daglish** and **Pat Collins,** but also visited industry representatives on the Darling Downs and in North Queensland to discuss current trends in management of insects in stored grain.

Prof **Uri Gerson**, arrived recently from the Hebrew University of Jerusalem to begin a one year sabbatical with the Plant Protection Unit at Indooroopilly. Uri is no stranger to the Unit having spent a year here in 1993/94 working on mites of agricultural importance. The results of that visit included the description of some six new genera and 12 new species, including one genus named in memory of the late **Neil Gough**. One of the things Uri plans to do here is to prepare notes for a revised edition of "Acarine Biocontrol Agents: An Illustrated Key and Manual" which he co-authored with **Robert L. Smiley**. The book was recently translated into Chinese.

John Donaldson has been identifying samples of mango leafhopper from Weipa, Aurukun and

Moreton in far north Queensland. This is the first record of the mango leafhopper in Queensland, although it was found in Darwin a month ago and has been present in the Torres Strait since 1986.

Ted Fenner (NT Department of Primary Industries and Fisheries) visited the Plant Protection Unit recently to examine specimens of mango leafhoppers. **Andras Szito** (WA Agriculture) and **Peter Gillespie** (NSW Agriculture) also visited for discussions with John and to look at *Trogoderma*, Bruchinae, and thrips in the insect collection.

The fruit fly disinfestation team of **Bob Corcoran, Pauline Peterson** and **Peter Leach** (Cairns) attended the Australian Entomological Society Conference in Melbourne where they presented papers on their work on papaya fruit fly. **John Hargreaves** (Redlands) and **Iain Kay** (Bundaberg) also attended the conference.

Chris Monsour left the Indooroopilly laboratories at the end of July. He has moved to Bowen to complete writing his PhD and to join the team at Bowen Crop Monitoring Services.

QDPI, Toowoomba

Bernie Franzmann continues to take an occasional jaunt into the countryside to look for silverleaf whitefly. So far they have proved very elusive in the field except for the dry tropics (Ayr, Bowen) areas. **David Lea**, an honours student at USQ has just started a project with Bernie looking at the effect of various host plants on silverleaf whitefly and their interaction with a parasitoid, *Encarsia pergandiella*.

QDPI, Applethorpe

Frank Page and **Peter Nimmo** currently are validating the codling moth day degree model for Stanthorpe district. It appears to be working out satisfactorily and a warning to apple growers has been issued advising them that the first egg hatch is due on about the 20 October. This is early due to hot conditions (biofix at Applethorpe was 26 September). As a collaborator in the HRDC project led by **Graham Thwaite** (NSW Agriculture, Orange) on management of codling moth resistance to azinphos-methyl Frank has commenced two trials in Stanthorpe district orchards where problems with control of codling moth have been experienced. Low level resistance to azinphos-methyl is widespread in the district.

University of Queensland, Gatton Campus

Errol Hassan attended a conference on biodiversity in Costa Rica organised by *Scientific American* which provided an opportunity to learn about the current research in this important area and to network with the researchers. After the conference Errol visited the National Banana Corporation where he had discussions with Dr **Roland Romero** on spiralling whiteflies. This insect widely affects banana plantations in Costa Rica and has recently been found in North Queensland.

In July Errol participated in the International Chemical Ecology Conference at the University of British Columbia, Vancouver, Canada. He had discussions on collaborative research, and participated in a Plant Protection Short Course targeted at industry personnel. This proved valuable as Errol has run workshops on insect pests and plant protection for several agri-industry companies since his return.

Neil Heather recently returned from an FAO/IAEA Working Party Meeting in Vienna, Austria, on irradiation as an alternative to methyl bromide fumigation. The trip was linked to a consultancy in Tangier, Morocco, on irradiation as a disinfestation treatment.

Congratulations to **Simone Heimoana** (née Schlack) who has been awarded a Master of Agricultural Science degree for her thesis entitled "Quarantine status of *Atherigona orientalis* Schiner (Diptera: Muscidae) in export cucurbits". Simone is currently in Tonga.

Iain KAY
Regional Councillor

CRC for Tropical Pest Management

Rachel McFadyen (DNR), **Graham White** (CTPM), and **Lynne Grbin** (CTPM) ran a one-week training course on Biological Control in October. The Food and Fertiliser Technology Centre for the Asian and Pacific Region sponsored 11 participants to attend. A wide range of presenters provided an overview of the theory and value of biological control in pest management supported with interesting case studies. The participants benefited from the course, with most finding the opportunity to discuss their pest problems with people from other countries useful.

CSIRO Longpocket Laboratories

Dr **Soon-Won Lee**, an entomologist from the

Taegu Apple Research Institute in South Korea, is currently a guest of **Richard Vickers** at the CSIRO Entomology Long Pocket Laboratories. Dr Lee is interested in the use of pheromones for pest control and in IPM in pome fruit production. As well as participating in pheromone trials at Long Pocket, Dr Lee will also be spending time at entomology labs in NSW, Victoria, S.A. Tasmania and New Zealand.

University of Queensland, Dept. of Entomology

Two visitors will be arriving next year. **Volker Hartenstein** a *Drosophila* developmental biologist, will be at the department with intention of labelling neural progenitors in embryos. **Tim Paine** will return to the department where he will focus on *Phoracantha*, a cerambycid that attacks eucalypts. Tim will be examining the parasites and predators of this beetle.

Hugh Dingle from Univ. California at Davis has joined the department for the next year. His interest lies in animal migration research in the arid environment of Australia. Prof **Andre Cokl**, from the University of Slovenia is visiting the department this month. He will be spending his time investigating sound communication and neural processing information of bugs and grasshoppers.

David Yeates has returned from a visit to North and South America. After a meeting in Illinois, David joined **Mike Irwin** and spent three weeks collecting in Chile. It was early spring in most of Chile and the best collecting spots for Diptera were around LaSerena in the north.

Queensland Museum

European arachnologists **Christa Deeleman-Reinhold** and **John Murphy** have visited the Museum and **Robert Raven** accompanied them to Cairns in October. After a marathon 15 hours unpacking with Tarantula Keeper **Kurt Walker**, **Robert Raven** has been carefully checking the progress and settling in of the 53 live American and Indian tarantulas, scorpions and whip scorpions into tight quarantine conditions in the Butterfly house, South Bank, Brisbane. The biggest danger from the spiders is not a bite, but urticating hairs, loosened each time the spiders are upset.

Geoff Monteith travelled to Melbourne in early November to receive the 1997 Australian Natural History Medallion from the Field Naturalists Club of Victoria. **Geoff Monteith, Chris Burwell** and **Doug Cook** will spend the last two weeks of November in the field in North Queensland collecting from sites at Mt Spurgeon, Mt Lewis, Mt Williams and Ravenshoe. Many people dropped in to the entomology section while attending and running conferences and workshops in October. These included **Paul Brock**, UK, **Tony Postle**, WA, **Laurence Mound** from Canberra, and **Peter Gillespie** from Orange.

Dept. of Natural Resources

Entomologist **Michael Day** had a last minute trip to Bogor, Indonesia, where he was called upon to replace **Rachel McFadyen**. Michael gave a series of lectures on various aspects of biological control of weeds, as part of a course on Integrated Weed Management at BIOTROP.

Graham Donnelly recently inspected Siam weed infestations near Lae, PNG, with Dept. of Agriculture and Livestock weed scientist, **Warea Orapa**. They investigated facilities at Bubia Agricultural Research Station with the view to setting up a Siam weed biological control program with ACIAR funds.

K Dhileepan, **Steve Adkins**, and **Scott Dearden** (Parthenium action group, Rolleston) attended the first International Conference on Parthenium Management held at Dharwad, India in October. While in India, discussions were held with scientists from the Univ. of Agricultural Sciences, Dharwad, Project Directorate of Biological Control, Bangalore, and Tamil Nadu Agricultural Univ., Coimbatore. A collaborative research plan for the management of parthenium, with an emphasis on biological control, was developed.

The biological control of lantana project is now collaborating with NSW Agriculture, with the recent release of the lepidopteran agent *Ectaga garcia* at field sites between Coffs Harbour and the Queensland border.

Toni WITHERS
Regional Councillor

SOUTH AUSTRALIA

We are saddened by the recent death of **Paul Madge**, foundation member of the Australian Entomological Society, Honorary Secretary for the years 1992-95 and 1995 recipient of the AES Service Award. An obituary appears in this issue.

Department of Crop Protection
The University of Adelaide

Otto Schmidt has returned from study leave during which time he worked with **Lynn Riddiford** and **Jim Truman** at the University of Washington in Seattle. In the first few months he was able to characterise a *Manduca sexta* cell line which has haemocyte properties. This is the first cell line with those characteristics from a lepidopteran species. He also attended the 11th International Entomophagous Insect Workshop in Wisconsin, USA and the 4th International Workshop on the Molecular Genetics of Lepidoptera in Crete, chairing the session on insect immunity. **Andy Austin** has handed back the duties of head of Department to Otto and has been able to escape on study leave for four weeks in the United States. **Paul Dangerfield** visited Canberra during October and was enlightened by **John Trueman**'s PAUP workshop.

Congratulations to **Lynne Grbin** who has been awarded a PhD for her outstanding thesis "Sublethal effects of *Bacillus thuringiensis* on the diamondback moth, *Plutella xylostella*, and its natural enemy, *Cotesia plutellae*: implications for resistance management".

Dirk Thomsen is currently visiting from Hanover, Germany working with **Mike Keller** on aspects of the behaviour of *Cotesia*. Congratulations go to **Latif Salehi** who was voted one of the best papers at the recent AES conference in Melbourne. Latif is in the final stages of his PhD with **Mike Keller** working on the behaviour of potato moth parasitoids. **Daryl Jackman** has finally received his well deserved funding from GRDC to undertake a PhD with **Mike Keller** to study thrips on citrus. **Nancy Cunningham** (SARDI) is starting work with **Mike Keller** as part of her Postgraduate Diploma working on the searching behaviour of hymenopteran parasitoids of citrophilous mealybug.

In late August **Cate Hill** attended the Society for Invertebrate Pathology International Conference in Banff, Alberta, Canada where she won a student prize for the best paper presentation. The conference included sessions on Bt, viruses, fungi, microsporidia etc. effective against arthropod pests. She then went to UC Davis for a week to visit Professor **Jeff Granett** (biology of phylloxera), **Bruce Hammock** (recombinant viruses) and Professor **Harry Kaya** (insect pathogenic nematodes).

In October the Society of Australian Systematic Biology conference was held in Adelaide but unfortunately overlapped with the AES conference. Being in Adelaide many of those interested in systematics stayed to attend and help organise it.

Entomology Unit, SARDI.

Over the last few months, **Dennis Hopkins** has ventured interstate for several meetings and a conference. In August he attended an Australian Plague Locust Commission meeting in Canberra, and in September, a meeting on European Wasp in Melbourne which was convened by the Victorian Government. Also in September he attended the AGM and Scientific Meeting of the AES in Melbourne. Over the last few months, Dennis and **Ken Henry** have been working with staff from Primary Industries SA to plan for the control of plague locust later this year. Operations are expected to begin in late October.

Peter Bailey attended the Fruit fly workshop at Griffith University in September. He also presented a paper on the opportunities for integrated management of insect pests of grain legumes at the International Food Legume Research Conference III in Adelaide.

Greg Baker attended a meeting of citrus entomologists at the Hawkesbury campus of the University of Western Sydney in July, and joined with AQIS entomologists at a Brisbane meeting in September for matters quarantine. Dr **Jianhua Mo** recently relocated from the CRC for Tropical Pest Management to take up a 3 year contract in Adelaide working with **Greg Baker** (SARDI), **Mike Keller** and **Rick Roush** (Univ of Adelaide) on a study of diamondback moth (DBM) in brassica vegetables. The initial focus of Mo's work will be on DBM population dispersal.

South Australian Museum

In September **Shelley Barker** briefly visited the National Museum of Victoria to examine the *Cisseus* types. Recent visitors to the SA Museum included **Marie-Claude Larivière**, **Regina Teo**, **Greg Daniels**, **Max Moulds**, **Dan Bickel**, **Chris Reid**, **Hanna Reichel**, **Penny Greenslade** and **Penny Gullan**. The Society of Australian Systematic Biologists Conference held in Adelaide was attended by **Archie McArthur**, **Eric Matthews**, **Lynette Queale** and **David Hirst**.

Citrus Board of South Australia

Andrew Green and **David Cain** recently travelled to the USA to meet quarantine and research entomologists at UC Riverside, UC Lindcove, Beltsville Agricultural Research Centre Washington DC and the USDA-APHIS Riverdale. Most of the discussions focused on what SARDI and the CBSA had done to prevent quarantinable pests arriving on Australian citrus. Light brown apple moth continues to create problems, with 50 pallets requiring treatment from the Griffith area this year. Juvenile citrophilus and longtail mealybugs, while not a quarantine concern, slow the dispatch of fruit until their identity is confirmed. **Doug Miller** (taxonomist, Beltsville) suggested that a key for identifying juveniles may be feasible and improve the identification process. Otherwise a molecular technique will be investigated.

Private Entomology

De Barro Agricultural Consulting (DBAC)

James De Barro commenced his own consulting business in August this year in partnership with his wife, Tania. Based in Keith, it services primary producers in the upper and lower south east of SA as well as Kangaroo Island. DBAC specialises in monitoring all types of annual and perennial crops as well as providing crop management advice (including crop rotation and development, and herbicide resistant weed management) and R & D support for industry.

On the local scene in pulse and oilseed crops, the presence of *Helicoverpa punctigera* has been scarce with only a handful of pea and bean crops being sprayed at the writing of this report. Cabbage riddler has so far been a minor problem in oil and vegetable seed crops. It remains to be seen how their populations develop in the weeks ahead. Pea weevil is apparent in pea crops with control measures in action and many lucerne seedling stands are being treated for pink cutworm. The other pest to be unusually apparent this spring has been the blue-green aphid. Many of the populations have crashed due to eventual over-population and predation. In some instances insecticide use has been implemented.

CSIRO Division of Entomology

Geoff Baker will move to the CSIRO Entomology labs in Canberra in January 1998, thus increasing the Division's commitment to soil biology and pest management there. The Division's Adelaide lab will then close, after 14 years of tackling millipede, snail and earthworm topics. Geoff's current earthworm work will be transferred with him to Canberra. Needless to say the Adelaide lab is very much in wind-up mode at present, completing projects, "cleaning up" and rediscovering those old prize possessions that slipped down behind the bench. But Geoff, **Penny Carter** and **Vicki Barrett** still managed another pilgrimage to Cape Grim in Tasmania in spring to collect more of the deep burrowing earthworm, *Aporrectodea longa*, which they have since released into another S.A. pasture. Experiments aimed at developing mass-rearing methods for *A. longa* continue.

Gary TAYLOR and Paul DANGERFIELD
Regional Councillors

TASMANIA

Dept of Agricultural Science/Resource Protection Program,
CRC for Sustainable Production Forestry.

John Madden has taken the plunge and retired completely from both the University and the CRC for Sustainable Production Forestry. He was an inaugural member of the CRC and he will be greatly missed, both personally and intellectually. However, if the first few weeks of his retirement are an indicator, it is retirement in name only and we will still be seeing a lot of him between sojourns in Queensland. The Resource Protection Program of the CRC will now be managed by **Rob Floyd** from CSIRO Entomology, Canberra. The PhD students are soldiering on thanks to email contacts. **Tara Simmul** is assembling a comprehensive data set on the distribution, phenology and biology of the fireblight beetle, *Pyrgoides orphana*, on silver wattle and is planning to investigate why some trees appear to have more immunity to attack than others. **Zoltan Lucas** has almost completed his field work on seasonal phenology of the autumn gum moth, *Mnesampala privata*, trying to determine why the moth defies its common name and has spring populations in some areas. **Bradley Howlett** is investigating what leaf and tree factors influence location and attack of host trees by the eucalyptus leaf beetle, *Chrysophtharta bimaculata*; the adult beetles appear not to be preferring the ideal foliage for their larvae since they have been enticed to lay on plastic 'mimic' leaves, showing a preference for

leaves with pointed tips. **Judy Grigg** is chipping away at what attracts the black pine bark beetle, *Hylastes ater*, to *Pinus radiata* saplings; after the beetles have failed to cooperate by revealing any pheromones, Judy is testing whether the saplings or the associated microorganisms are releasing an attractant. **Sue Baker** has commenced a short project to collect overwintering ladybirds, condition them with different diets and then release them in plantations to control large populations of eucalyptus leaf beetles. Two new students should be commencing sometime next year to investigate the feasibility of augmenting numbers of natural predators and using entomopathogenic fungi for controlling high populations of *C. bimaculata* in plantations. **Tony Clarke**, now at the University of Queensland, visited his students at the CRC during the week before the Society conference, which he, Tara and Zoltan attended. **Jane Elek** and **Rob Floyd** were partially funded by the CRC to present papers at the International Forest Insect Workshop in Pucon, Chile, in August, which focussed on insect pests of pines and eucalypts in plantations.

Tasmanian Museum and Art Gallery

Roger Buttermore has been awarded a 1998 Churchill Fellowship to study bumble bee research facilities in New Zealand, France, the Netherlands, the Czech Republic, United Kingdom and Canada for 12 weeks, May - July. He has several other irons in the fire but is keeping us in suspense.

Forestry Tasmania

Humphrey Elliott and **Rob Floyd**, led by **Ross Wylie** (Queensland Forest Research Institute), have had several visits to Southeast Asia for their ACIAR project: Status of insect pests in plantations of *Acacia* and *Eucalyptus* in tropical Asia.

Dick Bashford hosted the half-yearly Tasmanian entomological curators meeting in June and attended the curators meeting in Adelaide and dropped in on the Society conference in Melbourne *en route* home. Routine winter monitoring for autumn gum moth have found only low populations which needed no control. Monitoring for Gypsy moth has commenced at major ports and a new system for monitoring chrysomelid leaf beetles will be trialled this summer.

Jane Elek and the leaf beetle team are gearing up for a busy summer assessing impact of adult feeding and testing additives to the bioinsecticide, Bt, to increase its field performance and other potential environmentally-friendly insecticides for minimising defoliation of plantation eucalypts.

A Forest Health Surveillance Officer, **Karl Wotherspoon**, has been appointed to implement routine health surveillance of the Forestry Tasmania plantation estate, with the expert assistance of **Tim Wardlaw** (Pathology) and **Dick Bashford.**

Jane ELEK
Regional Councillor

VICTORIA

Genetics Department, University of Melbourne

Jon Martin attended two conferences on Chironomidae in Europe in September. The first was the VIII Int. Balbiani Ring Workshop at Falsterbo, in south western Sweden, where molecular biology questions were discussed. The second was the 13th Int. Symposium on Chironomidae at Freiburg in southern Germany, where a broad range of topics was presented. There were quite a number of presentations relating to the effects of pollutants on chironomid communities, or on the possible use of chironomids as indicators of pollution. There was one other Australian at the second meeting, **Pete Cranston**, from Canberra, who was the invited speaker for the Thienemann Lecture. Participants at both meetings came from widely spread countries, but it was good to see large contingents from Russia, which included graduate students, at both meetings.

Jon will retire from the Genetics Department at the end of this year, although he will stay on to continue with his research on chironomids.

Environmental Management, University of Ballarat

Paul Horne of IPM Technologies recently gave an interesting seminar to students and staff in Environmental Management entitled 'Development of integrated pest management strategies'. Student **Corryn Savage** continues to work on formicidae associated with belah woodlands in south west NSW as her final year project. **Patrick Prevett** is planning to attend the forthcoming conference 'The Other 99%: Conservation and Biodiversity of Invertebrates' to be held in December.

Agriculture Victoria
Institute for Horticultural Development

David Williams presented a session on pest identification and monitoring, and caught up with **Les Readshaw**, at an IAMA sponsored IPM workshop in the Adelaide Hills on 23rd September, then flew to WA to discuss IPM with fruitgrowers in the Perth Hills before presenting a talk on Cropwatch to growers and IAMA staff at Donnybrook. He took the opportunity to meet with **Stewart Learmonth** and **Bill Woods** at Manjimup the next day before catching the red eye special back to Melbourne to attend a Victorian Strawberry Growers Association general meeting and farm walk. The following week was a bit quieter with a presentation on Integrated Fruit Production to the AES Conference and a tour of codling moth resistance management trial sites in the Yarra Valley with **Graham Thwaite**. **Mali Malipatil** visited Adelaide to attend the Council of Heads of Australian Entomological Collections meeting on the 28th September and the Software in Systematics session of the Society of Australian Systematic Biologists' conference on the 29th September, then travelled up to Griffith University to participate in an AQIS sponsored workshop on identification, biology and surveillance of pest fruit fly species. **Robyn Coy** (DNRE), **Mark Smith** (HRDC), **Fiona Clissold** (Monash University), **Ingrid Kovacs** (La Trobe University), **Andrew Weeks** (La Trobe University) and **Nancy Endersby** (IHD) haven't done much entomology lately as they have been having too much fun organising the 28th AGM & Scientific Conference. They would like to thank all of the delegates for coming and for making it an interesting meeting.

Finally, I would like to thank **Robyn Coy** for her efforts and assistance during her term as Regional Councillor (particularly the Conference bit!) and welcome to **Fiona Clissold**, the new recruit.

Nancy ENDERSBY and Robyn COY
Regional Councillors

WESTERN AUSTRALIA

Rob Emery and **Romolo Tassone** spent a week in Brisbane and Wagga Wagga training staff in the use of the Australian Grain Insect Resistance Database which is now fully functional for data input and querying over the Internet.

Françoise BERLANDIER
Regional Councillor

OVERSEAS NEWS

NEW GUINEA

A meeting of the Biological Society of New Guinea was held August 25-27, 1997 at the Motupore Island Research Station which is approximately 15km SE of Port Moresby. This well-attended meeting had 12 academic staff from Universitas Negeri Cenderawasih, Manokwari, Irian Jaya, Indonesia. The following papers of entomological interest were presented at the meeting.

1. Rosariyanto, E.M. and Yaku, A. Altitudinal distribution of several butterfly species in the Wandamen Peninsula with special reference to the Wondiwoi Area.
2. Masamdu, R. and Thistleton, B. Some observations on the taxonomy and distribution of *Papuanna* spp and related genera (Coleoptera: Scarabaeidae) in Papua New Guinea and the South Pacific.
3. Kumar, R. Microbes and microbials in the management of crop pests in Papua New Guinea.

Professor **James T. Goodwin**, Director, Agriculture and Biotechnology Centre, Unitech, Lae, continues to maintain an active interest in the taxonomy of Tabanidae. After attending the Bio Soc meeting, he visited the UPNG entomological collections and borrowed specimens for further study. The biocontrol of the unwanted weed water hyacinth, with the assistance of CSIRO Brisbane, continues to make headlines in the local papers. The public has now been informed that a 15 minute video on the project has been prepared for screening throughout PNG.

Ray KUMAR
PNG Correspondent

FASTS NEWS

(Federation of Australian Scientific and Technological Societies)

New Minister

The modification of **John Moore**'s ministerial responsibilities to directly include science, technology and industry offers some interesting possibilities for the science and technology community. It gives science and technology a direct voice in Cabinet discussions, a position FASTS has long advocated and specifically

recommended to Mr Howard in 1996.

Our view is that S&T are pivotal to a number of the biggest portfolios, such as Education, Environment, Primary Industry, and Telecommunications; and that only a strong direct advocate in the Cabinet room will enable Australia to gain full benefit from the work of its scientists and technologists.

The arrangement should also strengthen the connection between science and technology, and industry. This has been the weak link in Australia - we have many clever ideas, but the role of industry in developing them and bringing them to the benefit of the community has been significantly below standards reached by comparable nations.

The portfolio has been renamed, from Industry Science and Tourism, to Industry Science and Technology. This seems a much more logical arrangement by any measure.

The downside is that we have lost an enthusiastic and accessible Minister in **Peter McGauran**, at a crucial time for science and technology and for its interface with industry. His departure threatened to set back the process of developing new and better policies in science, technology and industry, and consideration of several major reports, including the Mortimer Report, the Stocker Review, and the Goldsworthy Report.

Minister McGauran had also been a strong supporter of the Marine Science and Technology Plan and it will be important to maintain the momentum of this initiative.

By selecting Minister Moore to fill the gap, the Government has found a neat solution to the changeover problem as well as boosting the presence of science and technology in major Cabinet discussions. It remains now to be seen how responsive the Minister is to the policies and ideas formulated by grassroots scientists and technologists. We hope to be able to address him directly on issues of interest to members at the FASTS' Council meeting in November, as well as meeting with him before that date.

CRC Inquiry

DIST has invited FASTS to make a submission to the inquiry being conducted jointly by DIST and the Department of Finance. The review will make recommendations on ways the CRCs and the CRC Program can be refocussed to become stronger commercial entities, by attracting private sector financing and reducing the call on public sector funding.

Submissions had to be lodged by 31 October, and the review is scheduled to be delivered to Government by 30 December. **Peter Cullen** was a logical leader to draft the FASTS' submission. This fits the Budget timetable, and it seems that the future of the CRC Program will be determined in the Budget to be brought down on May 12 next year. This means that decisions will be made in November-December this year.

FASTS meets David Mortimer

While I was in Italy, President-elect **Peter Cullen** and Past President **Graham Johnston** met **David Mortimer** to discuss FASTS concerns about his report "Going for Growth". FASTS' support for trying to increase growth in the Australian economy, and simplifying and focussing assistance to Business was reiterated; as were our concerns about his recommendations on the CRC Program, the R&D Corporations, and external earnings targets for CSIRO, AIMS, ANSTO, and Universities.

FASTS' Policy under revision

A revised version of our 20 page Policy Document is set to be released early in the new year, in time to influence Budget deliberations. The current document was launched shortly after the current Government came to power, and many things have changed in that period. It is time to revise our priorities and look at new opportunities and new areas of concern.

Some things have not changed - the need to fund infrastructure in universities, and the impending shortage of qualified teachers of mathematics and science. Other issues have emerged or gained greater emphasis, such as the difficulties young scientists have in establishing a career in research, the very real threats to the CRC program, and the need to work out the next generation of programs to support industrial R&D.

All Member Societies have been invited to suggest changes (direct to **Ken Baldwin**, at the ANU: Kenneth.Baldwin@anu.edu.au). Members will have several opportunities to comment: when the new draft is posted on the FASTS' web before Council, and after Council when the modified draft will be available for comment.

PMSEC

The next PMSEC meeting has the tentative title

of "Science, engineering and technology for employment". Obviously it will focus on the capacity of S&T to generate jobs.

FASTS suggestions have been incorporated in the program for the day, and I have also been invited to comment on the main document to be presented to the Prime Minister and his colleagues for discussion. This meeting unfortunately will be closed to the public, so we will not be issuing our usual invitation to FASTS' Members to nominate people to attend.

Peter Cullen will by then have taken over as President, and will represent FASTS at the meeting.

Inquiry into Institutes of Technical and Further Education

FASTS has been invited to make a submission to the House of Representatives Standing Committee on Employment, Education and Training on the appropriate roles of institutes of technical and further education; and the extent to which these roles should overlap with universities.

Jan Thomas is drafting our submission (JanThomas@VUT.edu.au), and any contributions would need to be sent to her almost immediately.

ANZAAS

The news that ANZAAS was moving to close down its operations was extremely disappointing but not altogether unexpected. Their problems were well documented, but perhaps it is still possible to build a new coalition which involves other groups as well as ANZAAS to carry on their work of promoting science and communication among scientists.

The objectives of FASTS include promoting the public understanding of science, and enhancing and facilitating communication in the scientific community.

I believe that any proposals for a successor to the ANZAAS Congresses can only succeed if they are solidly supported by the broad science community. While FASTS has yet to take a formal position on the matter, we will be part of any such discussions.

ANZAAS Medallist

Congratulations to former President of FASTS **Graham Johnston**, on being awarded the ANZAAS Medal for 1997 for his contributions to science, in particular to the development of science policy. He is a member of ANZAAS, and has just set up a web site to promote informed discussion on its future. The site already contains press reports from **Robyn Williams, Leigh Dayton** and **Graeme Leech**, plus the ANZAAS accounts, a report of the AGM, and the ANZAAS constitution. The URL of the site is:
http://www.usyd.edu.au/su/pharmacology/anzaas

Additional Health Research Funds

Board Member **David Tracey** attended a meeting of the Australian Society for Medical Research (a FASTS' Member), at which the ASMR plans to lobby Government for increased medical research funds were unveiled. The ASMR has employed Protocol Management Group to manage their campaign to increase the health and medical research budget, and calculated they had 143 days to influence the next Budget round.

This is of course a pre-election Budget, when Governments tend to be most receptive. The FASTS' campaign will be built around the revised policy document, and the "Ten Top Policies" as identified by Council and the Board.

A Rock for Each of Us

This reminds us all to be conscious of the opportunity in the next two to three months to influence politicians on relevant budget issues.

Joe BAKER
President
FASTS

TEN EASY STEPS TO GETTING MEDIA COVERAGE OF YOUR SCIENTIFIC CONFERENCE

The following article appeared in *Campus Review* in October and has been circulated by FASTS for publication in the news bulletins of FASTS member societies. It was designed as a guide to scientists, to help their scientific societies gain greater media coverage for conferences.

The author, **Toss Gascoigne**, of FASTS, is interested in feedback, comment and suggestions. His contact details appear at the end of the article.

So you want media coverage for your Conference? Funding a bit low? Public interest flagging? Student numbers in your discipline dropping off? Rumblings from funding sources about "relevance" and "technology transfer"?

There's a growing realisation among scientists

and technologists that a bit of well-timed publicity can be a good thing, for all sorts of reasons. But conferences present a special challenge. For a start, they tend to be big and confusing events, with far too many people and far too much information.

The challenge is compounded by the fact that the scientists giving papers are all away from their labs and their field sites, and thus away from a myriad of exciting picture opportunities.

It can be done! All it takes is time, imagination, an understanding of what appeals to the media, and (unless the conference is in do-it-yourself mode) a judicious injection of funds.

So - ten easy, sure-fire ways to guarantee media coverage for your conference!

1. Go through the program, pick out the most interesting and controversial speakers (about five?), and the most interesting and relevant papers. Then write a simple summary of their research and its effects. This should not be longer than half a dozen one or two sentence paragraphs, and should be written strictly in lay terms - no unexplained technicalities, no jargon. Include contact points for your chosen speakers, and the times they will be available to speak to the media. Include the phone number of a person who can provide more detailed information. Put an interesting headline at the top, have lots of white space on the page to make it easy to read, embargo the story so it cannot be published before the nominated date.

   You have now identified "the talent" for your conference (that's a media term. Could be good talent, could be bad talent).
2. Fax the pages off to journalists who cover this sort of story a couple of weeks in advance so they can include it in their timetables. You will need to follow the media to identify the appropriate journalists - they could be the science, technology, environment, medical, aviation or financial correspondents, depending on the subject of the conference. CSIRO has a good list of science and technology journalists, and is willing to make this available.
3. Follow up the fax with a phone call. Did the journalists receive the fax? Does the story interest them? Would they like more information? Offer to re-send the fax if the journalists did not see it - and keep it brief. Journalists are often frantically busy. Trying to "bait the hook" by drawing a journalist's attention to one among a blizzard of media releases is VERY EFFECTIVE and well repays the time taken in doing it. In the process the conference organisers gain an insight into what the media thinks are the best stories.
4. Make sure the talent is available! They need to be at the phone numbers you gave to the media, at the times you said they would be available. Think of equipping them with a pager or a mobile phone, so you can locate them easily during the Conference.
5. Media needs pictures, but conferences are visually dull. See if you can organise interviews in an interesting location nearby, such as a laboratory or a research site. Or make available some typical and exciting equipment at the Conference site. This will help TV cameramen and newspaper photographers make a better story. Or you could provide TV stations with broadcast-quality footage shot on Betacam tape, pictures which are typical and illustrative of the science under discussion. Five minutes is plenty. For television, if there are no pictures, there is no story.
6. Organise the Conference timetable so that the media "talent" gets to speak earlier in the day - 10 am to 1 pm is ideal, 4.30 pm is deadly. This gives the media enough time to cover the story, so it can appear in that night's TV news or the next day's papers.
7. Prepare a media room. It should be equipped with phones, phone sockets and power points for laptops and modems, free coffee, individual working spaces and copies of abstracts and papers from the Conference. Make it close to the main Conference room, and provide quiet spaces nearby for interviews.
8. Consider bringing the scientist to the journalist! Run media conferences each day, ideally at the same time, in the same place. Make available one (or more) scientists to speak to the media and answer their questions; and if they present two different sides of the same question, all the better. Media like controversy. Around lunchtime is ideal.
9. Consider giving the "talent" media training, to learn the ways of the journalist, sharpen up their interview technique, and find out what it is about their story that interests journalists. A month before the Conference takes place is

good.

10. These are the basic nine steps to media success. They can all be carried out by gifted amateurs with a feel for the media, but are best done by an experienced journalist-communicator. If the Conference budget stretches to it, consider hiring in an expert to do all this for you. A good one will know the ropes, know the journalists, have the time to do all the legwork, and have the networks to ensure that your conference publicity is widely disseminated.

Media people can also spot the good stories in your Conference program. That can be hard for scientists - what interests you as a professional will often fail to excite the media.

Don't wait until the last minute - get your expert involved at least a month before the event so they can plan the coverage. Ideally you should involve a media person from the very first stages of planning - their ideas can help shape the conference.

Good communicator/journalists will charge about $600 per day for their help, others will charge less. Like all things in life, you get what you pay for. *Australian Science Communicators* (ph/fax 02 6248 5846, ASC@asap.unimelb.edu.au) has a free booklet listing 50 communicators with skills in these areas.

And if all the above looks too hard, just remember that we live in the age of poll-driven governments. They interpret "leadership" as putting into effect what the community wants and gather this information by extensive polling and listening to the John Laws' program.

If S&T does not have public support, then in the long run it will not enjoy the financial backing of the Government.

Toss GASCOIGNE
FASTS

Author's contact details:
Mr Toss Gascoigne
PO Box 218,
Deakin West, ACT 2601
Phone: 06-257 2891 (work)
06-249 7400 (home)
Fax: 06-257 2897
Mobile: 0411-88 3418
Email: fasts@anu.edu.au
Web address: http://www.usyd.edu.au/su/fasts/

ELECTRONIC NEWS

Database of Orthopteroid Insects of the World

Announcing the availability of the database of Orthopteroid insects of the world (all taxa described prior to 1997). The database contains complete synonymic and taxonomic information as well as type locality and type depository data for over 16,000 species of Tettigonioidea (katydids and haglids), Grylloidea (crickets and mole crickets), Tridactyloidea (sand crickets), and Tetrigoidea (pygmy grasshoppers). In addition, the database of Tettigonioidea contains over 3,100 images (mostly actual type specimens) and many sound recordings of acoustic species. Visit it at:

http://viceroy.eeb.uconn.edu/Orthoptera

The database is the result of a joint effort of **Daniel Otte** (Academy of Natural Sciences, Philadelphia) and **Piotr Naskrecki** (University of Connecticut), and was funded by the National Science Foundation.

All comments and suggestions are welcome.

Piotr NASKRECKI
University of Connecticut

ESA97 on line

The abstracts of all the papers (spoken and poster papers) presented at the 97 Conference of the Ecological Society of Australia are now on-line, for those of you who did not attend or who have not got a copy of the program. Other details of the conference are also presented on-line, such as the winners of the student prizes, etc. Just go to the ESA Home Page and click on ESA97 for all the news: http://life.csu.edu.au/esa/

If you want a copy of the Published Proceedings "Frontiers in Ecology: Building the Links" email to Nick Klomp, the ESA97 convenor, immediately to reserve one of the remaining few. The cost is $40. Last dozen or so left.

Dr Nicholas KLOMP
The Johnstone Centre
School of Environm. & Information Sciences
Charles Sturt University
PO Box 789
Albury, NSW. 2640. Australia
Tel: +61 (0)2 6051-9905
Fax: +61 (0)2 6051-9897
email: nklomp@csu.edu.au

Iowa State University's Tasty Insect Recipes

Insects can be delicious and nutritious. They must be - look at all the other animals (and plants!) that eat them. The Entomological Society of NSW held a dinner featuring insect dishes some years ago. Now, Iowa State University has placed a number of tempting recipes on the WWW. Prepare yourself for such delicacies as

Bug Blox (with dry-roasted leafhoppers)
Banana Worm Bread (using armyworms)
Rootworm Beetle Dip
Chocolate Chirpie Chip Cookies.

Check them out at:
http://www.ent.iastate.edu/Misc/InsectsAsFood.htm

COMING EVENTS

Murray-Darling Freshwater Research Centre (Albury)
Tenth Taxonomic Workshop
10-12th February 1998

The Tenth Taxonomic Workshop is being held at the CRC's Murray-Darling Freshwater Research Centre (Albury) from the 10-12th February 1998. For its tenth year the workshop will focus on the taxonomy of Trichoptera, Coleoptera and Acarina (water mites). Guest speakers will be **David Cartwright, Jean Jackson, Jenny Davis, Chris Watts, Mark Harvey** and **Jane Growns**.

CONFERENCE ENQUIRIES: Enquiries and registration forms can be directed to the following people by **e-mail**:

Rosie Busuttil: foxylady@mdfrc.canberra.edu.au
Diane Crowther:
dianec@mdfrc.canberra.edu.au
John Hawking:
hawkingj@mdfrc.canberra.edu.au
Phone: (02) 6058-2300
Fax: (02) 6043-1626
Address: The Murray-Darling Freshwater Research Centre (MDFRC), PO Box 921 ALBURY, NSW 2640.

REGISTRATION: Participants must register and include the fee by **Friday 5th December 1997**. Cheques/money orders are to be made payable to the **Murray-Darling Freshwater Research Centre**.

Workshop Program

Tuesday 10th February 1998
9.00-9.15 "Welcome" **Prof Peter Cullen**, Director CRCFE
9.15-5.00 **Mark Harvey & Jane Growns** - Australian Water Mites
7.30pm Evening Barbeque at MDFRC

Wednesday 11th February 1998
9.00-10.45 **David Cartwright** - Polycentropids,Glossosomatids, Dipseudopsids & Psychomyiids
11.15-1.00 **Jenny Davis** - Psephenids (Coleoptera)

2.00-5.30 **Jean Jackson** - Calocids, Helicophids & Conoesucids (Trichoptera)
7.30pm Dinner, Thai Lotus Restaurant, 610 Dean St, Albury

Thursday 12th February 1998
9.00-12.30 **Chris Watts** - Revision of Dytiscids (Coleoptera)
1.30-5.00 **Chris Watts** - Revision of Hydrophilids (Coleoptera)

CONFERENCE ENQUIRIES: Rosie Busuttil, Diane Crowther, John Hawking at MDFRC, PO Box 921, ALBURY NSW 2640 Phone : 02-6058 2300 or Fax : 02-6043 1626

VENUE: The Murray Darling Freshwater Research Centre, Ellis Street Thurgoona NSW 2640

COSTS: Registration fee includes lunches, morning and afternoon teas. Identification Guides will be produced for each session and are included in the registration cost. The guides from the workshop will be available for purchase by non-attendants.

ACCOMMODATION: Accommodation is the responsibility of the participant. Listed below are motel, hotel and caravan park accommodation near the Centre.

Thurgoona Country Club Motel, Evesham Place, Thurgoona. Phone 02-6043 1666. Single and Twin Share from $77-97. Within walking distance of the MDFRC laboratory.

Sodens Hotel-Motel, Cnr. Wilson and David Streets, Albury. Phone 02-6021 2400. Motel:

Single $30,Twin $40. Hotel: Single $20, Twin $30. Light breakfast is included in both. Soden's is located in central Albury

Siesta Motel, 416 Wagga Road, Lavington. Phone 02-6025 4555. Single and Twin Share, both $80. The Siesta is 5km from the MDFRC laboratory.

Trek 31 Tourist Park, Hume Highway, Lavington. Phone 02-6025 4355. Cabin with ensuite, Twin Share $42. Van with ensuite, Twin Share $38. Van without ensuite, Twin Share $32. Additional persons can share the accommodation, $8 per additional person and $5 per additional child. Park units are available from $37 a double. Trek 31 is 4km from the MDFRC

Registration Form - Taxonomic Workshop

Registration : Participants must register and include fee by **Friday 5 December 1997.** Please make cheques payable to **The Murray Darling Freshwater Research Centre.**

Name : .....

Institution: .....

Postal Address .....

.....

State: ..... **Post Code:**

Email: .....

Phone: ..... **Fax:** .....

REGISTRATION COSTS

Ordinary Participants

All 3 days	$200
Day 1 only	$70
Day 2 only	$85
Day 3 only	$70
Evening BBQ	$15

(please indicate if vegetarian)

Full Time Students

All 3 days	$160
Day 1 only	$55
Day 2 only	$75
Day 3 only	$55
Evening BBQ	$15

(please indicate if vegetarian)

LAST Call for Papers
Sixth Australasian Applied Entomology Research Conference
'Pest management - future challenges'
29 September - 2 October 1998
The University of Queensland
Brisbane, AUSTRALIA

in conjunction with
Australian Entomological Society 1998
Conference and 29th AGM
26 - 29 September 1998

Are you an Applied Entomologist? Then this is your last chance to put in a paper for next years AAERC conference. Papers addressing symposia topics will be considered (see details *Myrmecia* **33**(3): 29-32) but we also invite significant papers addressing other key issues in applied entomology. Papers analysing general issues or case studies in pest management will have high priority. Accepted papers will be refereed and published in book form as a proceedings available at the Conference. Posters will be published as abstracts in the Conference proceedings.

We want to minimise the number of concurrent sessions, so the organising committee will be limiting the number of papers accepted for oral presentation. We reserve the right to ask authors to present proposed papers as posters. After December only offers of posters will be accepted.

If you wish to present a paper or poster at the VI AAERC, please provide a title, author(s) (presenter underlined), contact address, and a short 250 word abstract to the convenor of the Science Program Committee, Myron Zalucki, by 24 December 1997 (Go ahead make my Christmas!). The abstract should be sent to Myron at CTPM preferably via email to aaercabs@ctpm.uq.edu.au, or by fax (07 3365 1855), or as disk or hard copy by snail mail (address below).

Authors will be notified of acceptance, or otherwise, by mid-January. Guidelines for papers and procedures will be sent to authors on acceptance. Those responding to this second call should note that they will have less time to produce their paper! Deadlines for drafts (31 March is the date for initial submission of papers!) and revisions will be adhered to. Authors will be

required to register for the Conference before their papers are published.
For further information on the Conference, see *Myrmecia* **33**(3): 29-32 or the CTPM web page: http://www.ctpm.uq.edu.au/Education/AppliedEnto.html
or contact:

Sally Brown
ICTE Conferences
The University of Queensland
Brisbane QLD 4072 AUSTRALIA
ph: (+61 7) 3365 6360
fax: (+61 7) 3365 7099
Email: sally.brown@mailbox.uq.edu.au

The Australian Society for Microbiology Inc.
1998 Annual Scientific Meeting & Exhibition
"MICROBES TO THE MAX"
27 September - 2 October 1998
Wrest Point Hotel Casino
HOBART TAS 7000

For more information please contact:

ASM Secretariat
Unit 23, 20 Commercial Road
Melbourne VIC 3004
Australia
Ph: 03 9867 8699
Fax: 03 9867 8722
Email: ASMConference@clari.net.au
Website: http://www.vicnet.net.au/~asm

XIVth INTERNATIONAL
PLANT PROTECTION CONGRESS
Plant Protection Towards the Third Millennium
Where Chemistry Meets Ecology
Jerusalem, ISRAEL
July 25-30 1999

Details: *Myrmecia* **33**(2): 24-25
Contact:

Congress Secretariat
XIVth International Plant Protection Congress
PO Box 50006
Tel Aviv 61500
ISRAEL
Telephone: +972 3 514 0000
Fax: +972 3 514 0077 or 517 5674
Email: IPPC@Kenes.com

Xth INTERNATIONAL CONGRESS
OF ACAROLOGY
6-10 July 1998
Canberra, Australia

Further Information:

Dr Bruce Halliday
Principal Research Scientist (Acarology)
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601
AUSTRALIA
Phone: (06) 246 4911
Fax: (06) 246 4000
Email: bruceh@ento.csiro.au

Fourth Conference of the International Society of Hymenopterists.
Canberra, AUSTRALIA
6-11 January 1999

Details: *Myrmecia* **32**(1): 28
The Conference address and contact is:

4th Conference of the International Society of Hymenopterists,
c/o CSIRO, Division of Entomology,
P.O. Box 1700
Canberra, ACT 2601
AUSTRALIA
fax: 61-6-246.4264
email: iann@ento.csiro.au.

NEW PUBLICATIONS

"Pests of Timber in Queensland"
Queensland Forestry Research Institute, Department of Primary Industries, Brisbane, 1996, 175pp. rrp $25

This publication provides information on identification, pest biologies and economic importance of termites and borers. There is a growing trend in the community away from a heavy reliance on chemical pesticides and towards the use, where possible, of a combination of pest management practices. In this definitive work on Queensland pests of timber, the authors have emphasised an integrated approach. The book is intended for use by householders, pest controllers, the timber industry, architects, builders, government authorities, and students, and is a must for all who have an interest in timber and its protection.

"Identification Guide to Thrips Associated with Crops in Australia"
by Laurence A. Mound, CSIRO Entomology and Peter S. Gillespie, NSW Agriculture, Orange

This book, designed to be used in the entomology laboratory next to your microscope, is the first comprehensive, user-friendly identification guide to the economic Thysanoptera of Australia, together with the common non-economic species with which they might be confused. It is designed with hundreds of illustrations to make the illustrated keys easy to use. The book also provides notes on preparing thrips for identification, the biology of the group and on the Australian native Thysanoptera. There is also an extensive bibliography.

The book can be purchased from the NSW Agriculture Bookshop at $25.00, (incl. postage):

NSW Agriculture Bookshop
Locked Bag 21
Orange NSW 2800
Ph: 1800 028374
Fax: 1800 642065
or download an order form from the web:
http://www.agric.nsw.gov.au/Bookshop

NOTICES

SOCIETY OF AUSTRALIAN SYSTEMATIC BIOLOGISTS

The above Society has been formed in Australia to represent and foster the interests of systematics and systematists. It encompasses the broad interests and activities of those working in the areas of taxonomy, phylogenetics, biogeography and evolutionary biology, of all groups of organisms and with specific reference to the Australasian Region. The Society operates only by email and has NO MEMBERSHIP FEES. To join please send your Full Name, Postal Address, Taxon group/Interests, E-mail Address, Phone No. and Fax No., to the Society's Secretary, Dr David Morrison (davidm@bio.uts.edu.au).

Details about the Society and its inaugural Conference, which was held in Adelaide 29 Sept - 3rd October 1997, can be found on the Society's Home page (http://www.science.uts.edu.au/sasb/)

CSIRO JOURNALS CONCESSIONAL PRICES

Any member who is <u>not</u> getting CSIRO journals at concessional prices and who would like to, please contact:

Tracey Lockwood
Subscriptions Officer
CSIRO Publishing
PO Box 1139
Collingwood Vic 3066
Phone: 1800 626 420
Fax: 03 9662 7555
Email: info@publish.csiro.au

Request for Beetle Exchange

An entomologist from the Czech Republic has Coleoptera from all around the World for exchange. At present he is studying the world generic classification of the Anthribidae and would appreciate contacts in Australia who might be able to supply him some species from Australia, such as *Araecerus fasciculatus* (De Geer), the coffee bean weevil, and *Doticus palmaris* Pascoe, the dried-apple beetle. Write directly to:

Dipl. Ing. Milós Trýzna
Solvanská 46
405 02 Děčin VI
Czech Republic.

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

FORM OF NOMINATION FOR MEMBERSHIP

To be returned to:
Dr D.E. Walter, AES Secretary, c/o Dept. of Entomology
University of Queensland, QLD 4072

We the undersigned

Proposer: . . . . . (print name here) . . . . . (signature)

Seconder: . . . . . (print name here) . . . . . (signature)

being financial members of the Society, propose the following for membership of The Australian Entomological Society Inc.:

Title . . Initials . . Given Name . . . . . Family Name . . . . . .

of (Address): . . . . . .

. . . . . .

Tel: . . . . . Fax: . . . . . .

Email: . . . . . Degrees, etc: . . . . . .

Occupation or Appointment: . . . . . .

Interests, experience, and publications in entomology for publication in the News Bulletin *Myrmecia* (please attach brief resumé):

I accept nomination and undertake if elected to abide by the rules of the Society, and to pay annual subscriptions by the date prescribed.

Signature: . . . . . **Date:** . . . . . .

For **1996**, new student/retired members - $25.00; new full members - $55.00. **Payment with nomination required.** (NB. These rates only apply for new memberships.

. . . . . .

(EXECUTIVE USE ONLY)

Nom. received: . . . . . Nom. considered at meeting: . . . . . .

Payment received: . . . . . Elected at meeting: . . . . . .

Membership type: . . . . . Applicant advised: . . . . . .

REGIONAL COUNCILLORS

Queensland
Mr I.R. Kay
Qld Dept of Primary Industries
Bundaberg Research Station
MS 108 Ashfield Rd
BUNDABERG Qld 4670
Ph (07) 71556244
Fax (07) 71556129
Email: kayi@dpi.qld.gov.au

Dr T. Withers
Alan Fletcher Research Station
PO Box 36
SHERWOOD Qld 4075
Ph (07) 3375 0724
Email:
WithersTM@exchange.lands.qld.gov.au

Dr C. Reid
Zoology Dept
James Cook University
Townsville Qld 4811
Ph (07) 77815 753
Fax (07) 77251 570

New South Wales
Mr J.H. Hawking
Murray-Darling Freshwater Res. Centre
PO Box 921
Albury NSW 2640
Ph (02) 6048 1002
Fax (02) 6043 1626
Email: hawkingj@Watson.canberra.edu.au

Dr G.M. Gurr
Orange Agricultural College
Leeds Parade
ORANGE NSW 2800
Ph (02) 63635551
Fax (02) 63635590
Email:
geoff.gurr@oac.usyd.edu.au

Mr S.L. Doggett
Dept of Medical Entomology
Westmead Hospital
Westmead NSW 2145
Ph (02) 9633 7265
Fax (02) 9633 5314
Email:
stephend@bacto.wh.su.edu.au

Australian Capital Territory
Dr M. Matthews
CSIRO Entomology
GPO Box 1700
CANBERRA ACT 2601
Ph (02) 6246 4281
Fax (02) 6246 4264
Email:
marcus.matthews@ento.csiro.au

Dr G. V. Maynard
AQIS, DPIE
GPO Box 858
Canberra ACT 2601
Ph (02) 6272 5725
Fax (02) 6272 3399
Email:
gmaynard@mailhost.dpie.gov.au

Victoria
Ms N.M. Endersby
Inst. Horticultural Development
Private Bag 15
South Eastern Mail Centre
Vic 3176
Ph (03) 9210 9222
Fax (03) 9800 3521
Email:
endersbyn@knoxy.agvic.gov.au

Ms F. Clissold
Dept Ecol, Evol. Biol & Genetics
Monash University,
Clayton Vic 3168
Ph (03) 9905 5631
Fax (03) 9905 5613
Email:fiona.clissold@sci.monash.edu.au

South Australia
Dr G.S. Taylor
Dept of Crop Protection
Waite Campus
University of Adelaide
PO GLEN OSMOND SA 5064
Ph (08) 8303 7264
Fax (08) 8379 4095
Email:
gtaylor@waite.adelaide.edu.au

Dr P. Dangerfield
Dept of Crop Protection
Waite Campus
University of Adelaide
PO Glen Osmond
South Australia 5064
Ph (08) 8303 7273
Fax (08) 8379 4095
Email:
pdangerf@waite.adelaide.edu.au

Tasmania
Dr J. Elek
Forestry Tasmania
GPO Box 207B
HOBART Tas 7001
Ph 036 2338220
Email jae@forestry.tas.gov.au

Western Australia
Ms F.A. Berlandier
Entomology Discipline
Agriculture Western Australia
3 Baron-Hay Crt
SOUTH PERTH WA 6151
Ph (09) 3683249
Fax (09) 3683223
Email:
FrancoiB@apb.agric.wa.gov.au

Northern Territory
Mr G. Bellis
NT DPIF
PO Box 79
BERRIMAH NT 0828
Ph (08) 8999 2345
Fax (08) 8999 2015
Email
Glenn.Bellis@DPIF.nt.gov.au

REPRESENTATIVE COUNCILLORS

Entomological Society of Queensland
Dr J. King
QDPI Forestry Service
PO Box 631
Indooroopilly Q 4068
Ph (07) 3877 9716
Fax (07) 3371 2217

Entomological Society of New South Wales
Dr A.D. Clift
BCRI, PMB 10
Rydalmere NSW 2116
Ph (02) 9843 5777
Fax (02) 9630 4475

Entomological Society of Victoria
Mr R. MacPherson
8 Jean St
Lr Templestowe Vic 3107
Ph (03) 9850 4319 (AH)

OS CORRESPONDENTS
Mr J. Tenquist
Wallaceville Animal Research Centre
Private Bag
Upper Hutt, NEW ZEALAND
Email:
tenquistj@agresearch.cri.nz

Prof. R. Kumar
Dept of Agriculture & Livestock
PO Box 1430
BOROKO
PAPUA NEW GUINEA
Ph 67-5-230268
Fax 67-5-230279

Printed by:
G.K. Craig Pty Ltd
239 McLachlan St
ORANGE NSW 2800
Ph (02) 6362 7411
Fax (02) 6361 3797

Distributed by:
Ozanam Industries
87 Ryedale Rd
PO Box 154
WEST RYDE NSW 2114
Ph (02) 9807 4476
Fax (02) 9808 2591